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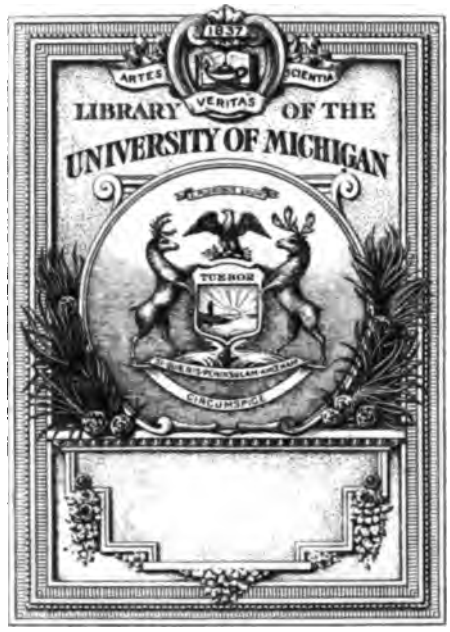
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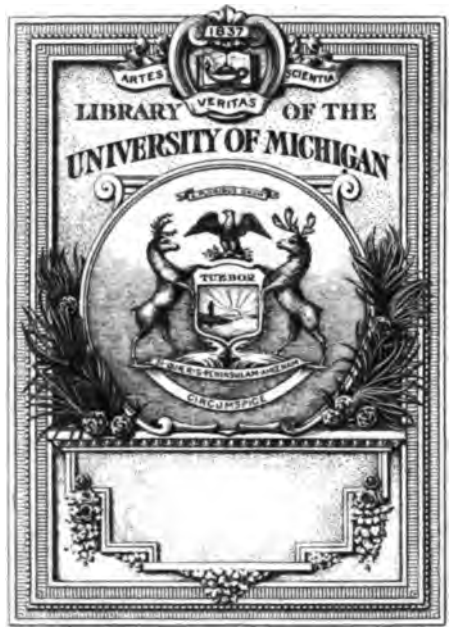
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LETTER OF TRANSMITTAL.

STATE OF MICHIGAN,
DEPARTMENT OF PUBLIC INSTRUCTION,
Lansing, December 31, 1901.

To His Excellency, AARON T. BLISS,
Governor of the State of Michigan:

SIR—In compliance with the provisions of law, I have the honor herewith to transmit through you to the Legislature, the annual report of the Superintendent of Public Instruction, together with the accompanying documents for the year 1901.

Very respectfully,

Your obedient servant,

Delos Fall

Superintendent of Public Instruction.

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SUPERINTENDENT'S REPORT.

Upon assuming the duties of the office of Superintendent of Public Instruction the present incumbent felt that the responsibilities of the office were grave and important, the need of much to be done imperative, and the opportunities many for advancing the educational interests of the State. At the outset much thought was given to the question of determining what particular direction his labors should take. Section 1 of Article XIII of the Constitution of Michigan declares that the Superintendent of Public Instruction shall have the general supervision of public instruction and his duties shall be prescribed by law. Proceeding upon this constitutional provision, the legislatures have at different times made specific the various duties which he shall perform. Act 164 of the laws of 1881 provides that he shall have general supervision of public instruction and of all State institutions, other than the University, that are essentially educational in their character; and it shall be his duty to visit the University, the Agricultural College, the School for the Deaf and Dumb, the School for the Blind, the Industrial School for Boys, Industrial Home for Girls, and the State Public School for neglected and dependent children, and to meet with the governing boards of each of said institutions at least once in each year. He shall also prepare annually and transmit to the governor, to be by him transmitted to the legislature at each biennial session thereof, an annual report containing: first, a statement of the condition of the University and of each of the several State educational institutions, all incorporated institutions of learning, and the primary, graded and high schools; second, estimates and amounts of expenditures of all educational funds; third, plans for the management of all educational funds, and for the better organization of the educational system, if, in his opinion, the same be required; fourth, the annual reports and accompanying documents, so far as he shall deem the same of sufficient public interest, of all State institutions of educational character; fifth, abstracts of the annual reports of the school inspectors of the several townships and cities of the State; sixth, all such other matter relating to his office and the subject of education generally as he shall deem expedient to communicate.

He shall semi-annually apportion the primary school interest fund among the several townships and cities in the State.

Perhaps the best discussion of the duties and methods of the chief educational officer of the State is to be found in the report of the Committee of Twelve made to the National Educational Association in 1895 upon

the rural school problem. After discussing the training and character of a man who should have proper fitness for such an office that report says: "His influence must reach in all directions. He must be an inspiring and stimulating guide to the teacher; he must create public opinion and interest in popular education, going among the people in the spirit of Horace Mann and instructing them in the cause of public education, and finally, he must be a politician to the extent of being able to secure proper legislative enactments and appropriations."

From the multitude of duties, therefore, which closely or remotely belong to this office, there has been chosen one chief line of work for the past year, a line which has long seemed to need vigorous if not radical action looking toward the correction of evils which certainly are acknowledged by all to exist. Our graded schools are in charge of trained and skillful superintendents and because of that fact require less outside help. On the other hand, there are hundreds of ungraded districts whose average attendance is not more than five or ten pupils; teachers are employed for short terms and are frequently changed, two and often three different teachers being employed in the same school during the same year. Considering these things it is not too much to say that many of our schools are not in the best sense fulfilling the purpose for which they exist, and this being so the supreme duty of the Superintendent was made apparent and he therefore resolved that the strength of his administration should be thrown in the direction of the betterment of the rural schools.

Michigan at the best could not hope to lead in this campaign for the rural schools. Massachusetts had already led the way by developing the township system and that state is now leading in consolidation and centralization. Many hundreds of schools in New England, Ohio, and Indiana have been consolidated with gratifying results. In fact eighteen states of the Union have already carried out to a greater or less extent the practice of consolidating small schools and transporting the more distant pupils to a central school at the public expense. The United States Commissioner of Education says that the practice continues to spread wherever it has gained a foothold. He also states that it is the general experience that a saving of funds is effected through consolidation of schools. Of the towns in Massachusetts that have tried the plan sixty-eight per cent report a less cost after consolidation and only eight per cent an increased cost. Of 124 New Hampshire towns, 118 report less cost with conveyance as compared with maintaining local schools, 5 report the cost the same, and one the cost greater; 26 give the cost with conveyance as one-half of that with local schools, eight give one-third, seven give one-fourth, three give one-fifth, and one each one-sixth, three-eighths, two-fifths, and three-fifths. The testimony is very general that consolidation results in improved schools, and is well-nigh unanimous that attendance is more regular.

Michigan boasts of its free schools, that it is possible for a boy to mount step by step from the lowest to and through the high school and on through the college or University. This is absolutely true for the child in the city but for those living in the country this privilege is denied, unless he goes to the city high school at the expense of money and much inconvenience, at a time, too, when he is too young to leave the parental home. One important round of the ladder is lacking in the rural communities

and it seems strange that the day of the rural high school dawned so late, but, as a late writer has said: "Its hour is struck at last and it is safe to say that few questions of educational administration have been receiving more general attention than this one, within the last few years."

In this connection it is a great pleasure to record the fact of a rapidly growing public interest in the question of deriving the best results from our public schools which they are capable of giving. The people are discussing the question with much earnestness and although all cannot see alike the time is coming when they will, on their own initiative, inaugurate reforms which will be far-reaching and beneficial.

Reference to the statistical tables accompanying this report will show that for the year 1901 Michigan has a school population of 730,101, with an enrollment of 510,031, being an increase over the previous year of 5,046. It thus appears that about seventy per cent only of those enumerated in the school census were actually in attendance upon our schools. But it should be remembered that many between seventeen and twenty years of age have completed their school life, having graduated from school prior to this time.

The pupils attended school in 7,171 districts, containing 8,066 schoolhouses, and were taught by 16,054 teachers, who received in wages a total of $4,736,779.14. The average monthly wages for male teachers in ungraded schools was $31.12, and in graded schools $73.94; for female teachers in ungraded schools $26.04, in graded schools $44.91; being an increase for male teachers in graded schools of $3.08, in ungraded schools of $2.09; and for female teachers in graded schools of $1.41, in ungraded schools of $1.26.

This report also shows that the money for the support of the public school system of Michigan was derived from a balance carried over from the preceding year of $1,340,971.76; from the primary school interest fund $1,436,421.84; from one mill tax $879,568.36; from district tax $5,053,225.86; from non-resident pupils' tuition $88,418.59; from library moneys $120,871.61; from loans $642,426.99; and from all other sources $670,128.23, making a grand total of $10,232,033.24. Of this amount, $1,837,014.19 remained unexpended at the close of the year, making the actual expenses for rural and graded schools for the year $8,395,019.05. This sum of money represents an expenditure of $11.50 per capita for the total school population of the State, or $16.46 per pupil enrolled, or 10⅖ cents per day for each pupil enrolled.

To this should be added the money expended by the State for the support of higher and special education, which for the fiscal year ending June 30, 1901, was as follows:

University of Michigan	$565,953 54
State Normal College	96,864 58
Central Normal School	66,418 15
Northern Normal School	23,960 07
Michigan Agricultural College	235,620 68
College of Mines	78,558 23
Total	$1,067,375 25

School for the Blind	$31,112 20
Industrial School for Boys	80,841 50
Industrial Home for Girls	52,228 68
School for the Deaf	116,673 85
State Public School	39,689 52
Total	$320,545 75

These totals added to the expenses of rural and graded schools give a total expenditure by the State of $9,782,940.05, which is $13.40 per capita for the total school population, or $19.24 per capita for the total enrollment in the public schools and State educational institutions. This is about 11⅔ cents per day for each enrolled student, from the first primary to the University.

*The above, however, does not represent the entire financial interest of the people in education. To this must be added all the money expended on a comparatively large number of children who are being educated outside of the public schools, in private and in church schools. This number is estimated at 53,046. There must still be added to this the large number of students in the denominational and secular colleges of the State and the money expended for their education. The entire sum represents, in dollars and cents, the appreciation which the people of the State feel for that which represents culture and a high civilization. These figures suggest the question whether all of this vast sum is expended in a manner which will bring the best returns. The higher institutions and special State schools are governed by small boards of carefully selected citizens and no suggestion has ever been made which shows anything but the most painstaking and careful administration of the high trusts committed to these boards. The same can be said concerning the thirty thousand or more school officials who administer the primary and secondary school funds; and yet if a re-distribution of schools and schoolhouses could be made these funds would doubtless produce much better results than they are now doing. In another part of this report figures are given to show that greatly increased benefits would arise from centralizing or consolidating weak and small districts.

SECONDARY EDUCATION.

Occasionally the statement is heard that the burden of equipping and maintaining our high school system is an unjust one; but to those who are able to view the whole field and thus to come closely into contact with the sentiment of the people, it is a most hopeful sign that it has become the settled conviction of the citizens of the State that the high school is a legitimate and necessary integral part of the public school system and therefore must be sustained. This conviction is so strong that it is safe to say that this part of our school system will never be set aside. It has been the almost universal fact, not alone in Michigan but in all the states of the Union, that the high school has been the last to be established, and

* The too common notion that the last five schools named are to a large extent something besides educational institutions should be corrected. Whatever else the State may see fit to do for those children so unfortunate as to need paternal aid, the *one idea* in such institutions should be education. No other schools of the State need teachers so sympathetic; none need teachers better qualified or more progressive, and certainly in none is more skill needed in fitting courses of study to the needs of its pupils.

then only through the strenuous efforts of far-sighted and generous friends of educational advancement. The government has, from the earliest times, made generous provision for the establishment and maintenance of primary schools and for higher education, but for the high schools, the State has furnished nothing. In the cities sums of money necessary to equip and maintain such schools have been loyally voted, and the city high schools of Michigan are the pride and glory of the people.

THE RURAL HIGH SCHOOL.

It is hard to say why secondary schools have not been projected and carried out for the rural districts. If the times demand at least a high school education for the city boy or girl the reason should apply with equal force to the youth of the country. It is a false philosophy which reasons that all the young people of the city should be provided with these additional educational facilities but that only occasionally is it necessary for a boy or girl from the country to take advantage of the high school. On the other hand, it is unfair to many bright and ambitious young people to bid them take advantage of the high schools already established, for their parents are not always financially able to carry the burden of their support away from home; and besides, many think that a stronger objection to this narrow proposition is that there are possible evils of a very serious nature growing out of the fact that a boy or girl is no longer under the home restraint and authority.

It is probably true that the prevalent idea concerning the function of the high school is that it is a preparatory school to the college or university and that it is not so necessary to the boy or girl who does not expect to enter the higher schools of learning. This has always been a wrong standpoint from which to study this question. Time was when it might, with some truth, have been urged that "the little red schoolhouse" was the "people's university" and that the district school sufficed for the needs of the ordinary citizen.

Common school education gave sufficient discipline for the past generation, but it will not do for future business and industrial methods. With the economic revolution effected by the invention of great labor saving machinery, the annihilation of time and space by the telegraph and telephone, the demand for specialized and skilled labor in every direction, there must be a corresponding disciplining of the mental powers in order that the ordinary citizen may be able to keep pace with this intensive age.

The people are not slow to realize the condition of affairs. There is an increasingly intelligent and faithful administration of our schools which is in the highest degree commendable. School officers are discharging the duties which are resting upon them with a degree of faithfulness similar to that which characterizes the conduct of their own personal affairs. Patrons are taking an increased interest in the schools. There is a demand for better teachers and in many instances there is a willingness to reward the better preparation on the part of the teacher by paying larger salaries. Those who attend teachers' institutes and associations show a more general professional spirit and a degree of enthusiasm that gives promise of better school work.

But all will agree that a much larger work remains to be done. The times demand that our schools shall render better service than they are now doing. As the years go by, larger and more important responsibilities fall upon those who assume the duties of citizenship than those with which their predecessors had to grapple, and there is a growing sentiment that the least which the State should furnish to every boy and girl in Michigan is a good high school education.

One of the serious economic questions of the day is that which considers the alarming fact of the great congestion of our population in the large cities and the consequent depopulation of our rural districts. The causes for this are many, but among them is the fact that in increasing numbers our boys and girls are keenly recognizing, as they should, that their generation will, in a more emphatic sense than is true at present, be an educated generation, and if they are to maintain themselves they must have better training than is at present afforded by the ordinary district school. As a result of this some are going out from the country home to the cities and towns to seek a high school education.

One of the results of their high school course is that they become accustomed to and enamored of the ways of the city and many of them resolve to remain there.

Another result is that a vast amount of money for school purposes annually flows from the country into the city. Last year 17,406 pupils paid non-resident tuition to the amount of $87,277.89. Of this number 9,651 pupils attended graded schools, and estimating the current expenses of these pupils, on the average, at the sum of seventy-five dollars each, for transportation, board, extra clothing, etc., there was an additional sum of $723,825 expended in a single year for the sake of obtaining a high school education. The total sum approximates a round million of dollars and stands as a splendid monument to the appreciation which the rural classes manifest for higher education.

One of the minor evils arising from this condition of things has been pointed out above, but a more alarming and serious fact is, that while a small percentage of our rural young people are thus receiving the training and culture of the high schools, a much larger class cannot afford the expense of going away from home for that purpose. They know as well as their more favored friends that the times demand at least the education which the high schools give; but they are not financially able to obtain more than that afforded by the district schools at home. This condition of things will gradually give rise to a class distinction. The bright and promising young men will drift to the city and the less ambitious will remain behind. I have been told by observant farmers that this kind of differentiation is already taking place and that it is now clearly manifest in some localities. It is very certain to be much more apparent in another generation. The reverse should be true; the country needs the presence and influence of the brightest and best of its young life.

Another great impediment to progress under our present system should be briefly noticed. With the small number of pupils found in many of our district schools, a wide-awake, enthusiastic, progressive school is impossible. The writer has lately seen a graduate of Toronto University and of a prominent normal school presiding over a school of sixteen pupils. The school adjacent to this was taught by a young girl of seventeen and she

was managing one of the "people's universities" with an enrollment of eleven pupils. In neither of these cases was it possible to overcome the embarrassment of the lack of numbers. Eight grades being represented, the average to each grade was two pupils in the former case and less than that in the latter. A school under such circumstances inevitably degenerates into a mere form. The letter is observed but the spirit is lacking.

The following figures taken from the reports of school directors of the State show to what an extent small schools prevail and something of the waste in sustaining them:

Number of districts containing an enrollment of five pupils or less	83
Total expense of these schools per year	$13,636
Average cost per school	$164.28
Total number months' taught in these schools	472
Average number months' in each school	5.5
Average cost per month	$29.86
Total enrollment	366
Average enrollment	4
Average attendance	3
Average cost per pupil per month	$9.95
Average annual cost per pupil for 10 months' school	$99.50

These figures are taken from counties of the southern peninsula, and many counties contain from one to six such schools. The Superintendent recently visited eight schools in one township where the highest enrollment in any school was thirteen. We can see that the rate per pupil is exceedingly high and that the few pupils who live in these districts are being deprived of their chief birthright. They can attend school but five and a half months and then only under the most discouraging conditions. Fifty-one districts maintained no school at all because there are but one or two children in each district. These conditions ought not to exist as they violate the rights of both parent and child in depriving them of an education.

We have carried the investigation further and find that there are 1,004 districts in the State having an enrollment last year of less than fifteen pupils with an average attendance of less than eight pupils, and lest any one should get the idea that these districts are confined to the sparsely settled portions of the State, we give below the number of such districts found in the four southern tiers of counties.

Number of districts by counties having an enrollment of fifteen or less pupils:

Allegan	15	Ingham	26	Monroe	4
Barry	30	Ionia	15	Ottawa	5
Berrien	18	Jackson	38	Oakland	53
Branch	21	Kalamazoo	38	St. Joseph	36
Calhoun	36	Kent	14	Shiawassee	18
Clinton	16	Lenawee	25	Van Buren	16
Cass	26	Lapeer	10	Washtenaw	39
Eaton	21	Livingston	36	St. Clair	8
Genesee	20	Macomb	10	Wayne	7
Hillsdale	38				
Total					639

The following figures are for the districts in the entire State having an enrollment of fifteen pupils or less:

Number of districts containing an enrollment of fifteen pupils or less	1,004
Total expenses of these schools per year	$200,478.13
Average annual cost per school	$199.67
Total enrollment	12,380
Total number months' taught	7,013
Average number months per district	6.97
Average cost per month per district	$33.27
Average enrollment	12.3
Average attendance	8
Average cost per pupil per month	$4.16
Average annual cost per pupil for 10 months	$41.60

We have taken the cost for ten months in order to compare with the expenses in city school districts. We find that the average cost per pupil in city schools varies, but in no case have we found it more than $19.40 per year, with the high school included.

The foregoing figures show that the people in the small rural districts are paying very much more per capita for educating their children than the people in cities pay, and yet usually have inferior schools and no high school advantages. There are 6,452 rural districts in the State and nearly one-sixth of these have fifteen or less pupils attending school. A small school is generally a weak school, and the question is how may we best remedy these conditions.

In the opinion of many the remedy lies in the consolidation of districts and the establishment of central schools.

Three methods have been suggested by which the central school idea may be realized.

First, it is suggested that the smaller and weaker districts shall be consolidated and that the number in each township shall be reduced to about four. At these points the district school, as we know it, shall be maintained and in a much improved condition. A fifth district will be made at the center of the township and a high school building erected large enough to accommodate the children of all grades who live in that district, and all the high school pupils from the entire township. This plan is being carried out in Illinois with great satisfaction to the people.

A second plan, known as the Ohio plan, consists of the abandonment of all the district schools in a township and the massing of all the pupils into one central school. A building costing from $2,000 to $6,000 is erected, the money for which has been raised by bonding the township for thirty years at four per cent. The annual interest on $6,000 at four per cent is $240, an amount not much larger than would be needed for repairs on seven or eight district schoolhouses from year to year, if they were kept up as they should be. One-thirtieth of the principal, or $200, added to the annual interest, $240, makes a total cost of $440 for building purposes for the first year, decreasing every year afterwards as bonds are paid off. In many of our townships the original cost of the schoolhouse need not be more than $3,000, or, buildings already erected may be utilized. The educational influence of such a building over that of nine or ten widely scattered and oftentimes neglected district buildings is beyond controversy among those who have had actual experience with them.

A third plan is that suggested by the law passed by the last legislature

WAGON USED IN STEPHENSON TOWNSHIP, MENOMINEE COUNTY, MICH., FOR TRANSPORTING CHILDREN.

of Michigan known as the Humphrey Rural High School bill. This law is only applicable to townships in which there is not already existing a village or graded school, and provides that, by a vote of the people, there may be established at a central point of the township a high school in which shall be taught the studies of the ninth, tenth, eleventh, and twelfth grades of the ordinary high school.

Two or three disadvantages appear to stand in the way of the successful operation of this law.

First, Only high school pupils can be admitted to it and this will greatly limit the number of pupils in the school and to that extent diminish its efficiency.

Second, It is only applicable to a comparatively limited number of townships in the State.

Third, There is no provision for the transportation of pupils to the school.

Under the first or second plan of consolidation, township lines need not be followed, as many townships have two or more natural centers, and the territory surrounding these, even extending into adjoining townships, may be made into one district, thus having two or more central schools in each township. Almost every county has many fractional districts and the size of the centralized district should be regulated by convenience rather than by arbitrary lines. In fact, the size and shape of our townships would, in many cases, prevent the union of all the schools into one to be supported by the entire township.

One very desirable feature of the consolidation plan is the transportation of pupils to and from their homes. This plan is already in operation in Stephenson township, Menominee county, where the township district system of the Upper Peninsula prevails. Two covered wagons, each of which will carry twenty-five pupils, are now used and the plan meets with such favor that more wagons will be employed next year.

In other states where this system is in operation the pupils are carried in comfortable, covered wagons provided with curtains, lap robes, soapstones, etc., for severe weather. The board of education exercises as much care in the selection of a driver as they do in the selection of the teachers. The contract for each route is let to the lowest responsible bidder, who is under bond to fulfil his obligations. The drivers are required to have the children on the school grounds at 8:45 a. m., which does away with tardiness, and to leave for home at 3:45 p. m. The wagons call at every farm house where there are school children, the children thus being taken into the wagons at the roadside and set down at the school doorsteps. There is no tramping in the mud or snow, and with the wagon under the control of a responsible driver there is no opportunity for vicious conversation or the abuse of little ones by some large, tyrannical boy.

The central high school would naturally become the social center of the consolidated district. In its assembly room could be given courses of lectures and there might be held teachers' and patrons' meetings, debates, concerts, etc., etc. The farmers' club also might gather at this central point for mutual consultation as to ways and means of making life better. The mental and social horizon of every man, woman, and child would thus be enlarged, and life take on a deeper and more blessed meaning.

In such schools all the children would receive a liberal education and remain at home during the entire time of their high school course. More important still, the character of the central school instruction should be such that there would be an ever-increasing appreciation of the value of country life; the result being not an estrangement from, but an increasing love for, the delights and benefits of such a life. These schools with nature-study, manual training, and agricultural science will train the eyes to see and the hands to manipulate, as well as the mind to think and the mouth to express the thought. A keen-eyed, ingenious, and forceful people will be developed in our rural communities. Twentieth century civilization demands that the general level of the entire race shall be elevated. The country has always furnished a large portion of our great men, but the country lad of today must bring to our commercial and industrial life not only the energy and push of the country, he must bring a disciplined mind as well.

Indeed, it should be borne in mind that the present commercial and industrial activity is possible only because of the better schools in which the men of the present generation were trained. True, these schools were faulty but the improvement that came to them through the adoption of better methods of teaching certainly shows in the mental acumen of the business and industrial life of today. Improvement in living and advance in business life have more than kept abreast with improvement in the schools. Even today the rural districts feel the throbbing of this intensive age. The suburban electric car lines are spreading like a net over the State; the rural free delivery is already here, bringing the daily paper to the farmer's door. The people must rise to the level of these new conditions.

The centralized school will be one of the steps by which the new level may be reached. With its educational benefits will come material advantages. Agriculture will become a business of the head as well as of the hand. Already it is true that the intelligent farmer is the prosperous farmer, and a man who cannot think, who does not read, and who is not enough of a scientist to observe, compare, select, and arrive at right conclusions regarding natural phenomena must soon yield his place as a farmer to his superior student-neighbor. In other words, prosperous farming must become scientific farming—farming along the line of least resistance. Hence, the more scientific farming is the easier it is.

Do not misunderstand me. I do not mean the farming of the wealthy, kid-gloved novice who squanders his money and his time on some suburban property and calls it scientific farming. I mean the sturdy, steady-headed, industrious man who is willing to work to live, but who also demands time for reading, for thought, and for experiment; and who knows, also, the educative value of social life and seeks to create the environments that give its opportunities. This the farmer can secure only by so managing that he makes his acres yield the largest results with the least outlay, and the man who best understands Nature's vast laboratory can easiest do this.

The great struggle today in all lines of business life is how best to utilize forces of Nature. In our schools, we must utilize the natural powers of the child, for this is true education and our nation will never

rise to its full possibility until it builds upon the education of the whole people, upon the enlightenment of the masses.

"Education must begin with the youngest. It must be enjoyed by the poorest. It must be shared by the richest. It must be secured to the remotest settler in distant states and territories, and freely given to the humblest dweller in our great cities. It must reach and touch alike the proud avenue and the degraded slum. In brief, every child must be given and required to use an opportunity to develop the gifts with which God has endowed him that he may grow to perfect manhood, to genuine culture—a culture which in hovel or mansion stands for character."

Michigan has always been foremost in matters of education and I feel sure that our people are equal to the great educational task before them.

Two important enabling acts were passed by the last legislature. One removed the nine-section limit; the other provided a means by which rural high schools may be established and maintained. By the provisions of the latter act the small schools of a township can be consolidated and a central high school established. There is, however, no provision by which the lower grade pupils, living near, can attend. This law is now operative and I shall watch with much interest and anxiety the workings of schools organized under its provisions.

One thing more should be said. There is no disposition on the part of this department to influence the people to do something which their own best judgments will not, to the fullest extent, commend. The whole matter is very properly in the hands of the people themselves, and no man or set of men can carry out any reform without their approval. Laws bearing on this subject should contain the referendum. The purpose of the department will be accomplished when the facts have been placed before the people for their consideration.

AN INVESTIGATION OF THE CENTRALIZED SCHOOLS OF OHIO.

By previous arrangement, the Superintendent of Public Instruction met the Hon. A. E. Palmer, member of the executive committee of the State Grange at Mt. Pleasant and proceeded with him to the state of Ohio for the purpose of investigating the success or failure of the centralized system of schools.

The points visited included Toledo, Painesville, Madison, North Madison, Ashtabula, Kingsville, Kinsman, Gustavus township, Green township, Warren, and Cleveland. The committee was particularly fortunate in the places visited inasmuch that during the course of the investigation many different phases of the educational problems were seen in active operation. The committee is under very great obligations to a large number of citizens of Ohio for information given and facts verified concerning the inception, growth, and present condition of the schools which are more or less under the principle of centralization.

Ten centralized schools were visited and carefully inspected. Incidentally many facts concerning as many more schools were brought to light and testified to by those who, by personal observation, were in possession of such facts.

The first prolonged stop was made in the township of Madison, Lake county. Here the committee found that the schools of the township had been centralized at five different places and by several different methods. A study of the diagram accompanying this will aid in understanding the situation of the schools as they existed prior to the act of centralization. The township is larger than the ordinary township on the Western Reserve and for that and other reasons could not be well centralized as a whole. Nearly in the center of the township is the village of Madison, with a thoroughly organized system of schools governed by a local board in what is known as a "special district." Adjacent to this had originally been two common district schools. These, by vote of the people, had been abandoned and the money which had previously been expended on the district schools was used in paying tuition of $10 per year for each pupil in the Madison village school and for the transportation of pupils to and from their homes. This was one phase of centralization; not the best, according to the testimony of the patrons, and yet much more satisfactory than the old district school.

The center of the school population in this township lies at a point about two miles north of Madison village, and the fifteen members of the township board of education, consisting of one member from each of the original sub-districts, voted to centralize the schools about this point, known as North Madison. A wooden building which had originally been used for a store had been purchased and fitted over for school purposes and four district schools centralized at this point. Here was found a school containing 110 pupils, including all the grades from the first to the eleventh, presided over by a superintendent and two assistants. Pupils were brought to this school by three teams, from distances one and three miles.

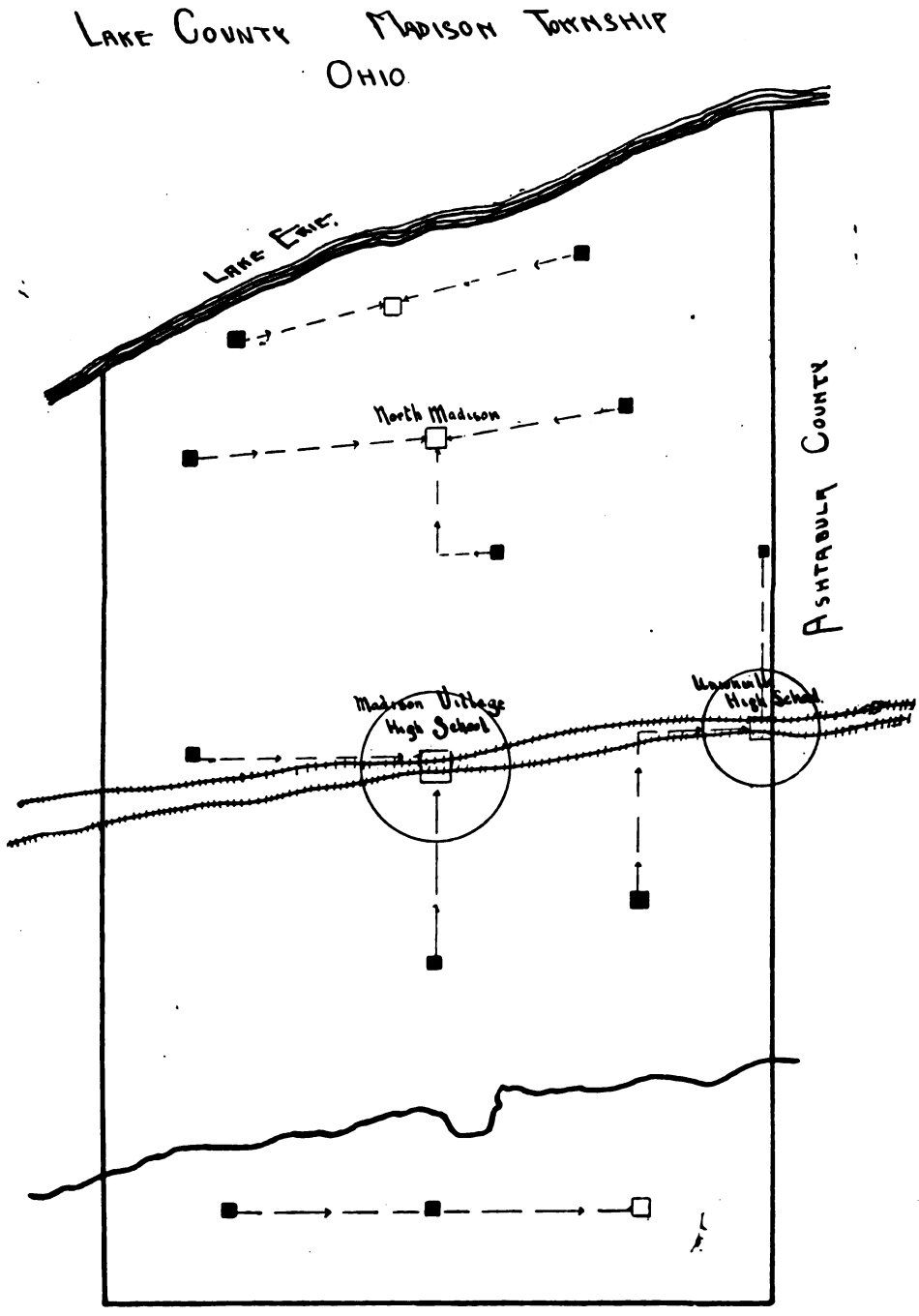


Diagram of Madison Township.

The school was well organized and bore all the marks of a successful graded school.

After inspecting the school the committee passed through the patronizing territory and interviewed many of the citizens concerning the attitude which the people take toward the principle of centralization.

Mr. W. Corlatt, an old member of the board, "does not hear of any opposition; the new school does not cost as much as under the old system and at that time we had no high school. Schools at that time were in a crude condition."

Mr. Frank Miller, township clerk for several years under the old system, says: "The children are very much better off. My own children are in school; does not cost any more."

Mr. S. Baker lived in sight of one of the original schoolhouses which later was abandoned. He said: "I formerly opposed the system; signed petitions against it, urged others to do the same; went to Painesville and made application for an injunction to restrain the officers of the board from moving the schoolhouse, but now I would not go back for anything." He has two children in school.

Mr. W. E. Fuller said: "You could not hire me to go back to the old way." Formerly opposed it; sends four children to school; speaks with a good deal of pride of one who is in the high school; says he often remarks to his wife, "Isn't it nice that our children are not in the storm today?" This man said, "The finest feature of the whole business is the transportation."

The following letter is from a woman well known as a writer and worker in Grange circles. The committee had a personal interview with her and asked her to write her views:

NORTH MADISON, O., May 24, 1902.

Mr. Delos Fall, Lansing, Mich.:

DEAR SIR—Your letter of the 16th was received last Monday. I have somewhat delayed my replying that I might ascertain whether I was correctly representing the attitude of this neighborhood toward centralization of schools, as well as expressing my own views upon the subject.

Perhaps it might be best to introduce "ourselves." "We" consist of family of four—father, mother, and two little girls, thirteen and ten. We live on a small fruit and onion farm two *long* miles from the centralized school, and as there are "cross-road scholars" to be carried in the school-wagon, it makes easily a distance of four miles that the scholars at this end of the route must ride to get to school.

Our school begins at 9 o'clock A. M. (sun time). The hack arrives in the morning at our house, not earlier than half past seven, not later than eight, according to weather and condition of roads. It reaches the schoolhouse somewhere near a quarter to nine and at night arrives here at about five o'clock.

The hack, as we call it, is a covered conveyance with two seats running lengthwise, a door in the back for entrance, an adjustable door for the front to keep out rain and cold, and curtains on both sides that can be put up or down, as the weather demands.

The driver is under bonds for the safe conveyance of the children, back and forth; and up to date, no accident has ever happened to any scholar in any hack connected with our school.

Our centralized school consists of four district schools joined together and requires three hacks for the transportation of scholars.

Last week ended the sixth year of our present school system, and I fail to find one person who says he would prefer to have back again our old district schools.

Two teachers are employed in most of our centralized schools, though in our school, Professor Cheney of the high school (who is a fine teacher and capable of a great deal of work), has charge of the eighth grade in nearly all of its branches of study. But I think that there is too much of a tendency to over-work our country school teachers. Where the classes are large, three or four grades in all the common branches seem too many for one teacher to instruct properly.

Still, with many things yet to be improved upon, from a knowledge of the real work done in our school, I can say, that *it is excellent.*

If newspaper reports are correct, Lake county carries the banner as a result from the late examinations given by State Commissioner Lewis D. Bonebrake. Now, if this be true, what more can be said in praise of centralized schools? For a larger per cent of Madison pupils passed than of any other township in the county.

We were among those who at first looked with disfavor upon the idea of centralizing our

schools. I knew enough about class work to realize the advantages of being one of a class of a dozen or more, rather than being by yourself alone or with one or two others, as was often the case in our district school. I could see many other advantages; but still I did not want to run the risk of my children getting hurt or sick and being so far from home; I did not want to leave them to chance as it seemed to me; and many other things I argued to myself (as a fond mother will) which I have now forgotten in the good results.

At the present time, I know of but *one objection* to centralization of schools, and that is, that it makes such long days for *far-distance* pupils, especially those in primary grades.

On the other hand I can think of so many things in favor of it. It very nearly does away with tardiness; it trains the child to be "ready for the hack" preparing him thus to be on hand every morning of his after-life for the duties that each day await him; the larger class inspires legitimate competition; higher aspirations come; Friday afternoon rhetoricals are more important; we secure better teachers for our children; their health is better, generally (because of the protection in going to and coming from school), and in fact I sincerely feel that the good results are now so apparent as to be clearly seen by anyone who thoroughly investigates the system.

Now the success which such a system attains and the satisfaction which it brings to patrons and parents, are due to careful and kind drivers of the school wagons, as well as to wise teachers in the schoolroom. I feel like repeating the statement, that it requires a good, kind, just man, who has a moral influence over the children during their ride to and from school. One who will put the stamp of disapproval upon any improper language, gossip or conduct, one who will encourage word games and kindness to one another among the pupils is the man to obtain, if possible. I also think that the children should be conveyed with expedition; meaning that the hack should be drawn by two *able* horses, the driver to be paid enough to furnish such, rather than those that are just able to crawl along after being worked hard during intervals before, between and after trips. (Oh that we must so count the cost in the education of our children!)

It should be in the contract that the hack should be well cushioned, certainly, that it should be kept clean and well ventilated every night and not used in winter, when closed, as a sleeping place for the family dog. I mention these things because they go to make or mar the success of the system of centralized school.

I may have failed to make clear the points in favor of it, but I *certainly* believe it to be an advancing step, and hope it will not be long before Michigan boys and girls will enjoy the advantages derived from such a system.

Respectfully,

JENNIE WOOD CLARK.

The committee next visited another school illustrating a different phase of centralization. The township board resolved to centralize two schools. The schoolhouses were mounted on trucks and by a traction engine hauled to a point between the two. Here the eight grades were divided into two groups of four grades each, which were given to the teachers who had been teaching in the separate sub-districts.

In the southern part of the township of Madison still another condition of affairs was found to exist. This part of the township is isolated by the Grand river from the rest of the township and the pupils could not well be brought into the general scheme of centralization. Three sub-districts existed in this portion of the township, each with a small number of pupils. The board of education ordered two of these schools closed and hired a team to carry the pupils from these districts to the third.

Here was found a large and enthusiastic school of eight grades under the direction of one teacher. The teacher's testimony was to the effect that by this change the character of the school had very materially improved, and several citizens of these districts, some of whom had bitterly opposed the project at first, testified that a saving of money had been effected by the change.

Unionville is a small hamlet on the edge of Madison township with a school of two teachers. The board had abandoned one other school of the township, the pupils of which were conveyed to the Unionville school. Two districts in the neighboring county of Ashtabula asked the privilege of abandoning their schools and conveying their pupils to the Unionville school, and this was done for a time but the result was that the school became over-crowded and these latter schools were obliged to go back to their original districts.

One of the abandoned schools had originally four pupils in attendance

but when the wagon appeared to transport these to the centralized school eight pupils presented themselves and were in constant attendance. In the same township there was a case in which the school originally contained ten pupils and eighteen presented themselves the first morning to be transported to the centralized school.

The Superintendent of Schools, Mr. J. R. Adams, says that the movement was in the beginning very bitterly opposed; now no one objects and a proposition to go back to the old ways is met by a legal proceeding enjoining from doing so. In place of a short school year all the schools in the township now have nine months' school. Great care is taken to choose proper drivers and they are required to enter into contract and furnish a bond as follows:

CONTRACT.

Transportation of Pupils of Madison Township Schools.

This agreement made by and between the Board of Education of Madison township, Lake county, Ohio, party of the first part, and ....., party of the second part.

WITNESSETH, That said party of the second part agrees to transport the pupils to and from district hereinafter specified for the full school year, in accordance with the specifications which form a part of this contract, for the sum of $..... payable bi-monthly, which sum said party of the first part agrees to pay for services well and truly rendered in accordance with the specifications of this contract.

SPECIFICATIONS.

1. Said party of the second part agrees to transport all pupils of sub-district No. — to sub-district No. —, Madison township.

2. To furnish a good covered spring wagon or vehicle which can be closed or opened at sides and end as the weather requires, and with sufficient seating capacity to accommodate the pupils of said sub-district No. — without crowding. Conveyance to be acceptable to the Transportation Committee of the Board of Education.

3. To furnish the necessary robes or blankets to keep the children comfortable, and in very cold weather, shall provide an oil stove or soap stones to heat the interior of the vehicle.

4. To provide a good team of horses to haul said vehicle and children. Said team must be gentle and not afraid of the cars, and must be driven by the contractor or a good, trusty person of adult age, said team and driver to be acceptable to said Transportation Committee, and said driver shall have full control of the children while under his charge, and shall be responsible for their conduct. No profane or immoral language, quarreling or improper conduct shall be allowed in the conveyance.

5. To cause conveyance with pupils to arrive at the schoolhouse in sub-district No. — not earlier than 8:45 a. m. nor later than 8:55 a. m. and leave at 4:05 p. m. (sun time).

6. To collect pupils on the following described route:.....
....
....
.....

....., President of Board.
..... Clerk of Board.

Madison, O., ...190.. A. D.

BOND.

Know all men by these presents that we ..... as principal and ..... and ..... as sureties are held and firmly bound unto the Board of Education of Madison township, Lake county, Ohio, in the sum of one hundred dollars, for the payment of which we jointly and severally bind ourselves.

The condition of the above obligation is this: That the said contractor has this day entered into the above contract to transport pupils from sub-district No. — to sub-district No. — of said township. Now, if the said contractor shall well and truly perform the conditions of said contract on his part to be performed, then this obligation shall be void; otherwise it shall remain in full force and virtue in law.

Bond approved this ..... day of ..... 19.. A. D.

.....Surety.

....., Clerk. .....Surety.

....., President.

As an evidence of the improved condition of the schools and the better results reached it was found that sixty per cent of the pupils of the centralized schools of this township had passed the "Boxwell" eighth grade examination, while only twenty-five per cent of applicants from the ordinary district schools were able to pass.

The committee obtained the original copy of the report of the Township Superintendent of Schools, extracts from which are as follows:

To the Board of Education of Madison township, Lake county, Ohio:

GENTLEMEN—It is a pleasure for me at this time to be able to report to you that the work done in our schools during the year which has just closed, has been very satisfactory to me, perhaps on the whole the most satisfactory of any year since I took charge of the schools seven years ago.

It is true there have been occasional surface disturbances but there has also been a good steady, constant undercurrent carrying the work along in the right direction and to a successful close.

On the whole, our corps of teachers, consisting of five gentlemen and nine ladies, has been fully up to the standard of previous years. With but one exception, they have all been taking a course of professional reading during the year. Twelve have taken the O. T. R. C. work, and one the Chautauqua course. The attendance at the regular monthly teachers' meetings has been good, all of which show that our teachers are alive to their work and anxious to improve themselves in their profession.

At the commencement recently held, a class of seventeen graduated from our common school course, eleven of whom were also Boxwell graduates. This makes a total of 86 graduates in the past five years, nearly all of whom have taken a high school course or are now pursuing such a course. In many respects the last commencement was better than any of the preceding ones, and the large attendance at all of our commencement exercises justifies the conclusion that the people of our township are becoming more and more interested in the work and management of our schools. This is certainly gratifying to me as superintendent, and must be equally so to you as members of the board of education. It is always a pleasure to feel that we have the support and confidence of the people whom we serve.

The school buildings of our township are in good condition and repair. The schoolrooms are properly furnished and well supplied with the necessary apparatus, etc., hence but little expense will be required along these lines the coming year. However, it will be necessary for the director in each school district to see that the out-buildings and the schoolrooms are all thoroughly cleaned and renovated before the beginning of school. These are little matters but they should not be overlooked as the health of the children may depend quite largely upon them.

The arrangement of transporting the pupils of No. 8 sub-district to Madison village school, so far as we have been able to learn, has given good satisfaction to the patrons of said sub-district and the children have certainly had extra advantages. We, therefore, recommend that the plan be continued for another year, providing the same rates of tuition and transportation can be obtained.

During the past year there have been only four pupils enrolled in No. 6 school, and we believe there will be no more for the next year. We, therefore, recommend and urge this board that the school in said sub-district No. 6 be temporarily suspended and the pupils thereof be transported to the school in No. 7 sub-district for the coming year, or until such a time as the number of pupils residing in said sub-district No. 6 shall warrant the reopening of said school. This recommend is made not simply because of the saving of expense which would result, but because I know it would be for the best interest of the children living in said No. 6 sub-district.*

Attached to this report and made a part thereof are several tables which have been care-

* We now transport the pupils of No. 6 to the village school.

fully prepared and to which I desire to call your attention. The first shows the enrollment, the attendance, etc., of each school for the past year, and also for the past six years. The second table shows the classification and gradation of the pupils in each school and in the whole township. The third table shows the total school expenses for each of the past six years; also for the past year the number of Boxwell pupils and their cost per capita; the number of pupils transported and the cost of transportation per capita; also the cost per capita of educating our pupils, based on the whole enrollment and total expense.

The fourth table shows the amount of money used in each sub-district the past year for teachers' salary, janitor work, fuel, and transportation, also the cost per capita in each school based on the above expenses and the total enrollment.

These tables are given to the end that you may know, so far as figures will show, the exact condition of our schools and what is being expended for their support and maintenance.

J. R. ADAMS,

Superintendent of Madison Township Schools.

Unionville, Ohio, June 17, 1901.

We have now only three *one-teacher* schools.

The tables which follow give statistics of the schools, the cost of transportation, and other facts which will be of interest as bearing on the subject:

APPENDIX A.

Attendance, enrollment, etc.

District Nos.	Teachers.	Total enrollment.	Total monthly enrollment.	Average daily attendance.	Per cent of attendance on monthly enrollment.	Total enumeration, 1900.
2	John Williams					
....	Nellie Crandall	49	41	33	80	
4	J. R. Adams					
....	Jennie Brooks	69	55	51	93	
5						
18	Lucie Griswold	35	27	22	82	
9						
6	Alice Cozad	4	4	4	100	
7	Kate G. Strock	15	12	10	83	
8	H. N. Kimball, village school	18	14	12	86	
11	T. M. Fouts					
12	Harrietta Hardy	119	103	92	90	
16	Nellie Corlett					
3						
1						
13	C. M. Chaffee					
....	Charlotte Forbes	59	48	42	88	
15	B. C. Carter	28	24	22	91	
17	Ina Miller	20	16	14	88	
	Totals, 1901	*414	344	302	88%	
	High school	35	31	28	90	
	1900	394	336	293	†7%	
	1899	392	316	267	†85%	
	1898	394	317	279	88%	
	1897	393	313	266	86%	
	1896	390	298	257	87%	
	1895	348	258	217	84%	

* The per cent of total enrollment on the enumeration of children between six and twenty-one (legal age) has increased from 60% in 1894 to 86% in 1901.

† Scarlet fever.

APPENDIX B.

Gradation and classification of pupils—Number of pupils in each grade.

School.	1st grade.	2d grade.	3d grade.	4th grade.	5th grade.	6th grade.	7th grade.	8th grade.	1st year.	2d year.	
No. 2	6	4	6	0	6	8	11	6	.....	.....	.....
No. 4	8	5	10	13	7	14	5	4	.....	.....	.....
No. 5	5	5	4	5	2	7	1	3	.....	.....	.....
No. 6	0	0	1	1	0	2	0	0	.....	.....	.....
No. 7	1	0	2	2	4	4	2	1	.....	.....	.....
No. 8	2	2	2	1	5	1	1	2	.....	.....	.....
No. 12	11	16	15	9	12	9	13	15	12	5	3
No. 13	9	3	7	12	7	9	13	4	.....	.....	.....
No. 15	6	2	4	6	6	0	2	2	.....	.....	.....
No. 17	2	3	5	3	1	2	2	1	.....	.....	.....
Totals	50	40	56	52	50	56	50	58	12	5	3

Number of pupils in grades	412
Number of pupils promoted	330
Per cent promoted	80
Number of pupils taking High School studies	20

APPENDIX C.

Expenditures.

For the year ending June.	1901.	1900.	1899.	1898.	1897.	1896.
Teachers' salaries	$4,200 00	$4,185 00	$4,170 00	$4,212 00	$3,855 00	$4,280 00
Supervision	200 00	200 00	200 00	200 00	195 00	195 00
Boxwell tuition	175 00	236 50	265 00	230 00	284 00	239 00
Tuition No. 8	148 00	.....	.....	.....	.....	.....
Transportation	1,618 00	1,420 60	1,338 00	1,146 00	1,092 00	332 00
Other expenses	902 00	1,306 00	923 00	1,433 00	1,657 00	2,509 00
Totals	$7,243 00	$7,347 00	$6,896 00	$7,221 00	$7,083 00	$7,555 00

Number of Boxwell pupils for whom tuition was paid during the year ending in June, 1901	12
Cost of Boxwell tuition per capita	$14 58
Number of pupils transported	150
Average cost of transportation per capita	$10 78
Total average cost per capita, based on the total enrollment and the whole amount of money expended	$17 50

APPENDIX D.

Expenses of the different sub-districts.

School.	Teachers' salary.	Janitor work.	Fuel.	Transportation.	Total expense.	Enrollment.	Cost per capita.
No. 2	$510 00	$18 00	$15 00	.....	$543 00	49	$11 08
No. 4	675 00	18 00	30 00	$200 00	923 00	69	13 38
No. 5	270 00	9 00	15 00	189 00	483 00	35	13 81
No. 6	240 00	9 00	15 00	.....	264 00	4	66 00
No. 7	240 00	9 00	15 00	.....	264 00	15	17 60
No. 8	148 00	.....	.....	190 00	338 00	18	18 80
No. 12	1,080 00	84 00	45 00	615 00	1,824 00	119	15 33
No. 13	630 00	18 00	30 00	424 00	1,102 00	59	18 68
No. 15	310 00	9 00	15 00	.....	339 00	28	12 10
No. 17	240 00	9 00	15 00	.....	264 00	20	13 20
Totals	$4,348 00	$183 00	$195 00	$1,618 00	$6,344 00	414	$15 44

The committee next visited the schools in Kingsville, Ashtabula county. This township was the first to centralize, having obtained permission to do so by a special act of the legislature in 1892.

The geographical relation of the Kingsville centralized school to the township may be understood by reference to the diagram. It will be seen that the area about North Kingsville is included in what is known as a special district. The idea of centralization is not carried out in this district and the pupils are not transported. Only the first six or seven grades are taught and the school lacks the interest and enthusiasm which is so manifest in the centralized school at South Kingsville. The citizens are generally agreed that this special district should be included in the centralized area, but the natural jealousy which usually exists between two small villages prevents their agreeing to bring the special district within the centralized one. One significant movement of the present year has been a vote taken by which two sub-districts which had not been included in the centralized school voted that next year they should take advantage of the better opportunities afforded by the latter. The vote on the question of centralizing stood six to one in favor of the movement. The committee was assured by several who were conversant with the facts that almost invariably those arrayed against the movement were voters who did not have children in school.

The Kingsville school bears all the marks of a thoroughly organized, equipped, and efficient high school. A fair library, enriched by a number of volumes bought by the literary societies of the school. The equipment is fairly good in physics and especially so in geology. The school contains twelve grades and at the present time has seventy-four high school pupils. The superintendent receives a salary of twelve hundred dollars, the principal forty dollars per month this year and fifty dollars next. Primary teachers receive thirty dollars per month. Wages before centralization were twenty dollars and lower per month. The superintendent of the schools is a graduate of Oberlin College. A senior class of thirteen will be graduated the present year.

The following is the annual report made by the president of the board of education of the Kingsville schools:

PRESIDENT'S REPORT.

The school question has been "much in evidence" the past year in our town. On petition the question of centralization was submitted to the voters of this township at the spring election in April.

The result was most gratifying to all friends of a higher and better education of the masses. The ticket "centralize, yes," carried by a majority of nearly six to one, and this, too, after trying the plan for nearly five years. So I take it, the question is settled as far as this town is concerned.

In the State of Ohio, schools were first centralized in Kingsville. The plan has proven successful. The children of the former sub-districts are carried by competent drivers to the central school. The classes are thus larger, the general health of pupils better, the supervision of teaching is closer, and the high school opportunities that are unknown to district schools are provided. It settles the rural school question in this part of Ohio. Those who wish to read an account of the history and working of the plan should secure a copy of the Arena for July, 1899.

The board of education in the early part of the school year of 1899 purchased a fine heating plant, which cost something like eight hundred dollars. The boiler is a sectional one and the pipes leading to the radiators are single. This action of the board looks to the better health and greater comfort of both the pupils and teachers. With only one fire in the building instead of fires in each room, with heated halls and warm basements and floors, the results in the cleanliness and comfort are not likely to be overestimated.

Let parents and patrons, teachers and tax payers, citizens, one and all, unite heart and hand in making our public schools the very best, that the young people may be the better prepared for the great battle of life.

C. W. KINNEAR,
President Kingsville Board of Education.

The course of study in this school offers five terms in algebra, four in geometry, three in physics, three in general history, nine in Latin, two in botany, besides a full complement of work in English, physical geography, American history, rhetoric, literature, higher arithmetic, civics, and grammar.

The high school contains two thoroughly organized literary societies, which, for the past three years, have held public meetings about once a month. It is the testimony of the teachers that the work of these societies has proven beneficial from more than one standpoint. They have formed a center of social interest and life and they have been instrumental in developing among the students a certain degree of proficiency in the arts of literary production, interpretation, and public speaking. By means of funds raised by these societies over $150.00 worth of books and pictures have been presented to the school.

Two sub-districts lying in the remote corners of the township were the last to vote whether they would abandon their schools and join the centralized school at Kingsville. The vote was six to one in favor of the proposition and the following letter explains how the writer canvassed his district and the results obtained:

May 15, 1902.

Mr. Delos Fall, Albion, Michigan:

DEAR SIR—Yours received, asking for the list of voters that voted for or against the centralization of our school.

Would say that being a member of the board of education and desiring to know the wishes of the parents of my district, I only visited those who had children attending school, and found that with one exception all wanted their children taken to the Kingsville high school.

The one excepting had a boy five years old and thought him too young to ride so far.

The opposition comes from those who have no children to educate, or those who care not as to their children's education.

The objections raised are of no value when compared with the advantages derived from the centralization plan.

Having to start so early in the morning is one of the objections raised. But where it has been in operation for two years or more, nothing more is said about it. Another is, greater danger of contracting contagious diseases. So far we have not suffered from that cause. Those who are backward about accepting advanced ideas have many objections that are not worthy of notice.

There is one difficulty that affronts us at present and that is to obtain desirable drivers for our school wagons, which should be persons who own good strong teams and will furnish nice comfortable wagons; also those who will keep good order while on the road. To obtain such persons, such a price should be paid as will induce desirable persons to apply. As for myself, I believe that the town should furnish and keep in good repair all rigs used and have them as light and comfortable as possible and such rigs that no one will be ashamed to have their children ride in them.

The advantages of centralization are many; among them it has been found that the attendance has been more regular, very seldom are scholars absent; much more interest is being taken and greater progress made. They have better literary advantages, better teachers, more competition in their work and in the end are far more accomplished than it would have been possible had they attended the district school. I might add farther that it has been proven that the children have been more warm and comfortable, where good rigs have been furnished, than when walking to the district school as of old.

If you wish the names of those living in my district, I will gladly send them, and be of any service to you.

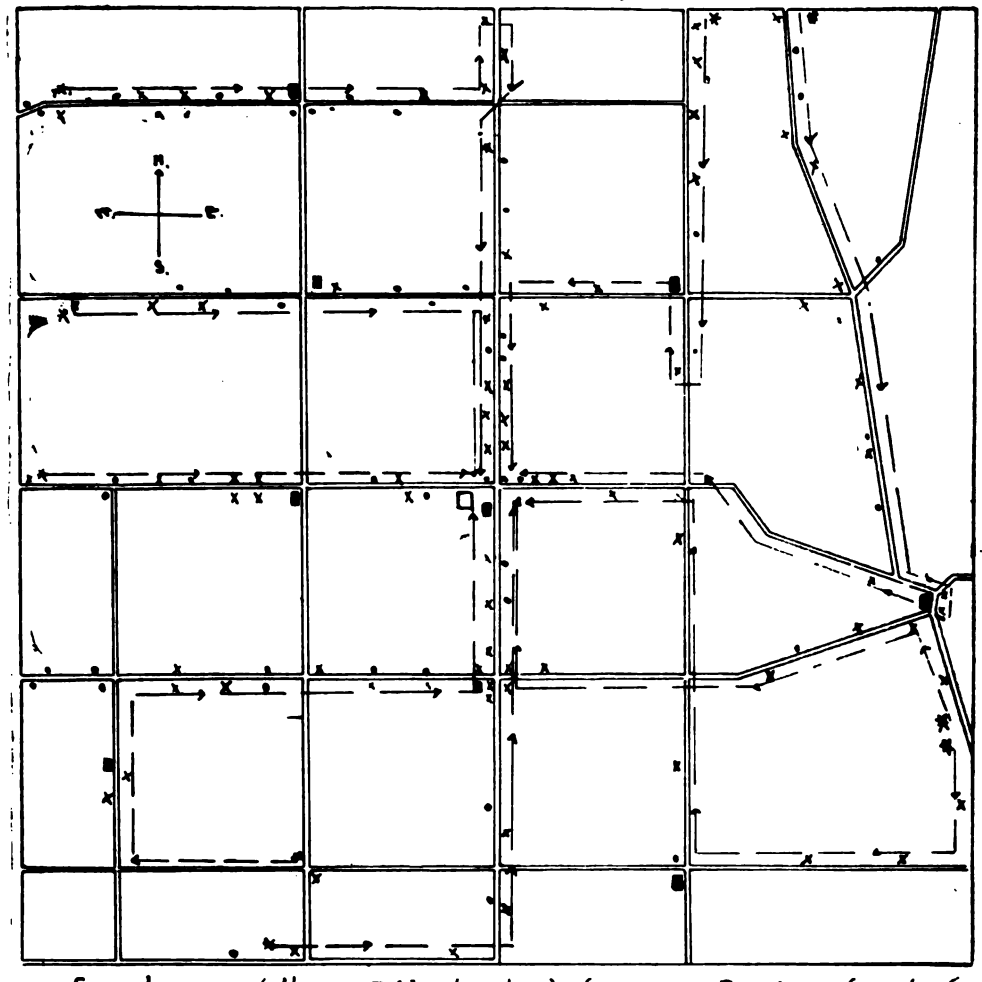
I have been away from home or I would have written before.

Would be pleased to learn what progress is being made in your state along this line. Hoping you success, I am,

Yours,

W. M. TYRRELL,
Kingsville, Ohio.

GUSTAVUS TOWNSHIP
TRUMBULL COUNTY.
OHIO
SHOWING TRANSPORTATION.



GUSTAVUS.

The committee was disappointed on arriving at Gustavus township to find that the school had completed its work the week before and therefore the school itself could not be studied.

The building is a large two-story, frame building, heated by steam, furnished with improved single seats, blackboards, maps, flags, pictures, and stands at the exact center of the township. Thirty-seven pupils were in the high school during the past year, four graduating from the senior class. The buildings are located upon large grounds with well kept lawn, stone walk, flag staff, etc.

The committee drove to the farm of Mr. C. G. Williams, president of the Gustavus school board. Mr. Williams is a leading member of the State Grange and editor of the Ohio Farmer. He gave a history of the movements leading up to centralization in Gustavus township. He said that at first two members of the board opposed the movement and it was agreed that their districts should be left out, but before the building was finished the patrons of those districts insisted upon being included and the entire township was centralized. The local grange of Gustavus was the prime mover in establishing the centralized schools. The entire grange have studied the matter very thoroughly and are highly in favor of it. The first vote taken in Gustavus was a tie, but three weeks later it was carried by a considerable majority. At the present time opposition cannot be found.

Mr. Williams had lately answered questions from another Ohio township with reference to the Gustavus centralized schools and authorized the committee to use the following questions and answers:

Q. "It is reported here that you get your pupils conveyed for $1 to $1.50 per day. Is this true? Explain how you are able to do this, for it seems very cheap."

A. Our township is five miles square. We formerly kept up nine sub-district schools and a free high school which any pupil in our township was at liberty to attend when he could pass the required examination. We are now accommodating our entire school population in a five-room building located near the center of our township, to and from which every pupil living more than a half mile from the center is conveyed at public expense. Nine covered wagons built expressly for the purpose and owned by the route contractors themselves bring these pupils in. Our routes vary in length from two and one-half to five miles. Our shortest routes cost us 60 cents per day; our longest, $1.50. The average for the nine routes is $1.28 per day. In the townships adjoining Gustavus (in all of which they now have centralization) I think the average price paid is about $1.50 per day, with perhaps one less route than we have. This price seems low. I judge it is low, but the greater part of the school year both trips can be made in four hours. You see then that the carriers can do quite a fair day's work at home besides taking the pupils to school. In winter it furnishes work for the farmer of few acres and little live stock, save an idle team perhaps, and he seems to feel that this is a chance to earn just so much extra. Whatever explanation we may make, the facts are as they are. We have not enough routes to supply all who would like to take one—or did not have at our last letting.

Q. "Have you heard of any trouble from contagious diseases?"

A. We have been running nearly four years and have not yet had to close school on account of sickness. I think that a township near us closed school two weeks last fall on a scarlet fever scare. They had no trouble, however.

Q. "Have you heard of any trouble from children becoming suddenly sick at school a long drive from home?"

A. We have a man under contract to take any pupil home whom the superintendent thinks should be sent home on account of sickness. I do not think that we have had to send half a dozen pupils home any school year. Our superintendent tells me that we have not spent to exceed $3 on this account any one year. Inexpensive, yet a great comfort to a parent to know that if occasion demands it, the child will be brought home.

Q. "Are your drivers required to drive in lanes to get pupils, say 80 rods?"

A. They are not. As a matter of fact this is not a problem in this township. We have only one case where pupil lives off the public road.

Q. "From your observation and experience, would you advise one central school or two or three located in different parts of the township?"

A. This is largely a local consideration. For a township such as ours, only five miles square with the hamlet or little village at the center of the township, most assuredly only

one. It takes numbers to make a good school, to give inspiration. In many of our townships we could handle more pupils than we have even after centralizing. It would be folly to run two corps of teachers. In other parts of the state where the townships are larger and frequently long, with possibly a village in each end, it might be advisable to have two schools. I do not know why two townships might not join in maintaining a central school. In this way one township might be interested jointly in two schools, thereby shortening its routes without especially increasing the expenses along other lines.

My correspondent writes that people in his vicinity generally admit that this system would greatly improve the schools, but they think it would be very expensive. A careful going over of the books of our township clerk shows that we are paying something like $250 more per year under the new system than we did under the old: this is for the school year ending last August as compared with the last year under the old system. I should state that *this small sum pays for two months more of high school than we formerly had;* also that we are having a larger attendance. The per capita expense is no greater.

C. G. WILLIAMS.

In this and other townships the committee was able to study the effect of the so called Boxwell law, a law passed by the legislature of Ohio by which pupils passing the State eighth grade examinations are entitled to have their tuition paid by the township in which they live. Because of this law it was stated by the citizens of Ohio with some pride that every boy and girl may have free access to the high school. On this point Mr. M. R. W. of Hardin county, Ohio, says:

"I consider the Boxwell law one of the most unjust laws ever passed. There are quite a number of Boxwell graduates attending high school from this and adjoining townships, and they are all children of well-to-do parents who are amply able to pay their children's tuition. There are several scholars who passed the examination who cannot attend high school because their parents cannot afford to pay the expense outside of tuition. But these same men must pay taxes to help pay the tuition for the rich man's child. And it looks to me as if this is taking the money from the country school where it would benefit the many, and giving it to the high school to benefit the few, and those few the ones best able to help themselves. Let us hear from others."

Commenting on the statement of this gentleman the editor of the Grange Department of the Ohio Farmer says:

"Naturally it hurts to see others better able than ourselves to pay tuition, getting the benefit of free tuition, while circumstances prevent us from taking advantage of it, but we must remember that there are many pupils to whom this free tuition means just so much more schooling which they could not possibly afford if they had to bear both the tuition and the extra expense for board, clothing, etc. Many pupils drop out of school before the twelve grades are completed because they cannot afford to attend longer, and the more fortunate get the benefit of the school funds, but we cannot urge that the tax to maintain these schools is unjust. Many taxpayers who never had and never will have children in the schools, and many who no longer have pupils to send, have to help support the schools for thousands of pupils whose parents do not own a dollar's worth of property and do not contribute a cent's worth to the school funds."

For situations such as M. R. W. has cited, we see no remedy so just and so inexpensive as that outlined in the articles on centralization given elsewhere. With free transportation to the high school thus provided, the poor man's children would be spared the expense of board in case he lived too far for them to walk to and from school. Besides, this system, as has been proven in too many localities to be disputed now, has the merit of being very little more expensive—in many townships much less so than the separate district plan; and has the merit also of providing, as the Aurora patrons say, "four times better schools," with the addition of four years more schooling through the high school course.

E. S. B., who drove the committee from Gustavus to Green township, says: "There is only two kickers in the town and they kick on every occasion and on everything."

Some of the interviews with patrons were as follows:

Mr. L. L. "Sentiment is almost unanimous in favor of centralization. Some children have to go long distances but have never known the children to complain."

Mr. C. G. L. was put on the board to oppose but now is an ardent supporter.

A. H. C. has nothing to say against, but says everything depends on the management.

B. A. W. says: "It cost $200 more last year but had a month more school and many more children."

P. G. "Cost a little more last year because badly managed."

Gustavus is a small burg; one store, town house, two churches, blacksmith shop.

GREEN.

The next township visited was Green, at the exact geographical center of which stands the Green township centralized school. It is a handsome brick building, slate roof, steam heat, new adjustable individual seats in all the rooms, organs, library, pictures, flags, etc. This building is located in a community distinctively rural. It is eleven miles from one railroad and six miles from another. It was built in 1900 at a cost of $6,000. The township first voted to raise $4,000. The vote was 135 for, 50 against. A few weeks later a second vote was taken to bond the township for $2,000 additional. The vote at this time stood 75 for to 9 against. Two thousand dollars additional has been added to equip the building with heat and furniture. To this building are brought all the children of the entire township, eight wagons being employed. Here the committee saw the pupils brought promptly at 8:45, in eight well furnished wagons, pupils of all ages and sizes from the little ones in the primary grade to the large farmer boys and girls belonging to the upper classes. One of the most interesting sights witnessed by the committee on its entire trip was that of twenty-five first primary pupils working at the blackboard under the direction of a skilled primary teacher. On this point Mr. W. R. said, "I have been impressed that in all these schools the little ones of the primary grades are fully cared for. The best teachers have been placed over them. This is the class of pupils who in the olden time district schools were ignored almost entirely."

The principal of this school receives seventy dollars per month; grammar teacher, thirty-five dollars; intermediate teachers, thirty dollars per month. The school employs five teachers. The enrollment last year was 186.

The committee was fortunate in visiting the school at the time when the annual exhibition of the junior class was held. The large church could scarcely contain the audience which assembled to hear the orations of the junior class. The program was a most creditable one, several of the speakers alluding to the great benefits arising from centralization. The program was carried out with all the equipments of flowers, music, class motto, class song, etc., characteristic of the ordinary high school.

The wagons are provided with curtains, lap robes, soap stones, etc., for severe weather. The board of education exercises as much care in the selection of drivers as they do in the selection of teachers. Contract for each route is let to the lowest responsible bidder, who is under bond to fulfil his obligations. The wagons call at the homes of the children and the pupils are set down at the steps of the schoolhouse. There is no

tramping through the snow and mud and the attendance is very much increased and far more regular.

AN OHIO PATRON'S VIEW.

Bro. C. M. Freeman, Secretary of the Ohio State Grange, is editor of the Grange Department of National Stockman and Farmer. In the last issue he speaks of the proposed visit of Bro. A. E. Palmer and Supt. Fall to Ohio to study the centralized school system, and then says:

"We have watched the agitation of the centralization of country schools and township high schools in Michigan with great interest, and we truly welcome them to Ohio and to our schools above mentioned. We have also noted the opposition of some members of the Michigan State Grange to these systems, with some regret. The township high school (and this is guaranteed by centralization) is looked upon in Ohio as a necessity for the farmers here, and we feel sure that Michigan will not be satisfied with anything less and that in a very short time. So, brethren, get ready. We look for a favorable report from the committee coming to Ohio, and hope it will create new interest in this work among the granges and farmers of Michigan."

CENTRALIZED SCHOOL SYSTEM OF OHIO.

Report of Hon. A. E. Palmer, delegate from the Michigan State Grange to investigate the system in actual practice. [By permission.]

In accordance with the resolution passed by the State Grange at its last session, the executive committee requested me to visit the states of Ohio and Illinois and carefully note the practical workings of the centralized plan of rural schools in vogue in those states, and to report my findings to the grange through the columns of their department in the Michigan Farmer.

I do not understand that the resolution asked for personal opinions or conclusions, but simply for those bare facts, exact conditions, and just comparisons that could be gathered upon the ground where the system of centralized schools might be found in operation—both alone and in connection with other classes of rural schools.

Before attempting any tour of inspection, correspondence with the superintendent of public instruction of Illinois elicited the fact that centralization was not an accomplished fact in that state, and a visit there would be of little practical value. I also ascertained that sixteen states were using the system more or less fully and with some variations. Massachusetts, where the plan first originated, has been consolidating rural schools and conveying pupils for twenty-five years, while other states have of later years adopted it as an optional part of their school organizations, among the others, Ohio. This state ten years ago, by a special act of the legislature, permitted one township in the county of Ashtabula to try the experiment of consolidating the district schools and conveying the pupils to one centralized school. From this local experiment other nearby townships in adjoining counties desiring to try the plan, the legislature granted at different times applications of this nature; but not until two years ago was a general law passed granting the privilege to the whole state.

At the present time there are in Ohio thirty-three fully organized townships and one hundred and fifty other townships where this system is partially adopted. With this information and much other of a similar character at hand, it was thought best to confine the investigation to Ohio, and especially as the information obtained through reliable sources led me to believe that almost every different phase of the problem would be found as counterparts of the many different conditions existing within our own State, and the facts later obtained justified my conclusions.

In company with State Superintendent Fall I had the pleasure of visiting the centralized schools of Ohio in April last. It was an interesting and profitable trip. Time enough was used to thoroughly inspect the practical workings of the schools of ten townships, in several different counties of northern and eastern Ohio and to obtain valuable information from many other townships, through sources of information practically reliable, because of the high standing and personal knowledge of the witnesses.

The committee were agreed to act entirely independent of each other, and as far as possible to gather information from different sources; but in one particular we could not but agree that our reception was royal in every respect. The people of Ohio welcomed us with the utmost kindness wherever we went, and the value of our visit was greatly enhanced by the disinterested and generous spirit in which all classes of citizens willingly gave us their individual opinions and furnished us with all the statistics within their knowledge. The Western Reserve of Ohio was originally settled with New England people and the character of the people, the topographical conditions that exist, the general features of agriculture

as carried on, the mixed conditions of development, of natural resources, and of personal prosperity, all contributed to make this section most valuable to your committee for comparison with Michigan because of such a similarity to the general characteristics of our own State.

In this part of Ohio we found the bulk of the centralized schools, and not only those longest in operation, but those in all stages of work and incipient organization. Here were found townships with two or more centralized schools, townships with large villages and the remaining portion centralized, others with special schools—centralized schools and a few original sub-districts, all in operation under the various laws governing each, and in numbers of instances strictly rural townships all embraced in one centralized school.

Ohio seems to have a multiplicity of laws governing school organization, all of them perhaps harmonious in theory but in the practical workings some of them quite conflicting. In proof of this the numerous amendments passed by each succeeding legislature to satisfy public demands seem to be the best evidence, and advertised the fact, that in Ohio as elsewhere the rural school is just now the chief object of solicitude, emphasizing more than anything else that the demands for a more complete training than the elementary school affords is not confined to any particular state or section of our country, but is very general in its character and extent.

Ohio has a compulsory school law very similar to Michigan's, and as far as could be ascertained, equally well enforced, but no better, like all other laws of this character, wholly regulated by consensus of local public opinion. Unlike Michigan, however, that state has the township unit system of taxation and government, the board of education consisting of one member from each sub-district and all under a township superintendent of schools, whose powers and duties are somewhat increased over that of the county superintendent in this State—and it is quite observable that very much of the results and efficiency of the schools depends upon the zeal and energy of that official.

Then, too, the board of education is clothed with somewhat arbitrary powers in the management, consolidation of districts, length of school year, designation of teachers, wages paid, and necessarily varying considerable the local conditions from those prevalent in this State under district organization and control.

But while the system of government and supervision is wholly unlike that of our State, the sub-district schools of Ohio are very much akin to the distrcit schools of Michigan, not any more at variance than in the different localities of our own State. The school buildings are a fair comparison, no better; the environments, both pleasurable and objectionable, are all there, the size of the schools varies greatly, as they do with us; so also the attendance, irregularity, tardiness, truancy, length of school year, class of teachers and teachers' wages, are so nearly like the conditions that prevail here as not to invite comparison.

One other condition it seems best to touch upon in order that you may better understand the detailed report to follow later—and that is the roads and their average condition throughout the year. In that section of the state visited by your committee, the roads are mainly clay and of that kind that "refuses to let go" and with the apparent depth as indicated by the ruts and general roughness even as late as the first of May, it seemed plausible to assume that is was an ideal section to test the desirability and efficiency of the transportation problem, which all authorities upon the subject seem to be agreed is an absolute essential to the plan of centralization. During some seasons of the year the roads, it is claimed, are in excellent condition, but mainly during the months when schools are not in operation In a few localities, especially near the shores of Lake Erie, more or less sand prevails, but on the whole any one who drives a few hundred miles over the average Ohio road will quickly conclude that the good roads problem is in that state just as far from solution as it is with us; so if the decision of the question of centralized schools depends upon the question of roads, Ohio has no advantages. All questions of rural school organization except sub-districts, are matters of local option with the township as a unit. A majority of the voters in a township is necessary for the organization of a centralized school, including the entire township or any part thereof, though it is not customary to include in such centralization any sub-district that objects to being included, yet instances did come under the observation of your committee where the wishes of the people in a sub-district were wholly ignored. This will be more fully touched upon later in this report.

Taxation for the centralized school is limited to ten mills in any one year, with the bare exception that for extraordinary purposes like new buildings, with the consent of a majority of its people, from two to four mills additional may be raised under certain restrictions.

In a general way I have sought to cover the ground of those peculiar conditions which your committee found existing in Ohio, for the purpose only that the detailed statement and statistical report which will follow, may be the more readily understood by the average reader, and he be thus the better able to draw his own conclusions and compare the conditions as found by the committee in Ohio, with his own immediate environments.

I shall in this report entirely refrain from giving my personal opinion, whatever I may do later, after I have fulfilled my duty to the grange.

The Department of Public Instruction will undoubtedly issue a bulletin, with more of the minor details of the investigation than space in these columns for a few weeks would permit me to use, even were I in possession of all the facts gathered by the joint committee.

Centralization in Ohio originated in Kingsville, Ashtabula county, in 1892, and by a special act of the legislature passed for the sole benefit of this one township in 1894, its action was legalized; this has been followed by other special acts, and two years ago by a general law, under which a large number of townships are consolidating their schools and transporting their pupils. It was the privilege of your committee to see these schools in all stages of formation, for we observed that centralization is generally partial, though in some few towns complete. It usually has been brought about gradually and only in a few instances by one effort. Our first visit was to

MADISON TOWNSHIP, LAKE COUNTY.

Here is found a greater variety of conditions than in any other section visited. There were originally sixteen schools. The high school at Madison village permits the pupils of two

sub-districts to be conveyed to that school, the township paying tuition and cost of transportation. Two miles north four other sub-districts are consolidated into one, with three teachers, and employing three wagons. Still farther to the north three sub-districts are centralized into one, with two teachers, while in the south end of the township, owing to natural obstruction, three small districts were joined together under one teacher and conveyed with one wagon, and three sub-divisions still remain as individual districts.

Prof. Adams, superintendent of schools of Madison township, assured us that "the experiment of centralization was no longer an experiment, but had come to stay, that as soon as suitable buildings could be secured large enough to accommodate the pupils, all of the districts would be brought into central schools." The people of their individual districts are demanding to be centralized, the opposition to the plan has long since died out; yet in the beginning the people were quite evenly divided, and a bitter controversy ensued. This fact your committee found to be a general condition, that wherever the plan was proposed it met at first with determined opposition but, once started, the objection melted away, and the population affected were equally averse to going back to original districts. This was the testimony at every place visited by your committee.

In this township we visited each school, met and talked with the drivers of the wagons. We took pains to meet at their homes a large number of the farmers, and from that source gathered a mass of information, which can best be compiled in a few true statements.

THEY ALL LIKE THE PLAN.

No one was found who for any reason desired to go back to the sub-districts. There were many who acknowledged having originally opposed centralization, but were now among its strongest advocates. The enrollment of pupils is increased upwards of twenty per cent, while the average attendance for 1901 was 96 per cent of enrollment; this is a result of transportation. The people usually are agreed that especially with younger children there is less sickness because of less exposure. No accidents have ever occurred with their wagons. Very much depends upon the driver. As much care should be exercised in the selection of drivers as of teachers.

The wagons were usually covered and made comfortable with robes, soap stones, and in some instances, oil stoves. In this township not a single instance of complaint against the plan of conveyance could be found. The distances ranged from two to four miles, and at an average cost per wagon of $1.30 per day, with an average load of fifteen pupils. In the outlying districts the children are obliged to be ready a little earlier than under the district plan. They must be ready when the wagon comes. The drivers say that the children seem to enjoy the ride, very seldom give any trouble, are never tardy, have no wet feet or clothing, and are very regular in attendance.

Mr. Corlett, a member of the board of education, who at first was a very strong opponent of centralization and transportation, but who is now equally as enthusiastic, says that the township record shows a lessened cost as compared with the old system.

Mr. Chas. DeForest, one of the heaviest tax payers of the township, says he does not notice any particular difference in his school taxes, but thinks much of the success in their township is due to the good management of the board of education, and to the energy, ability, and enthusiasm of the township school superintendent. In this township the wagons go to every home to take and leave the children; any other plan that would require the children to walk more or less distance to the wagons would not meet with favor.

In one of the centralized districts, originally three districts, the roads are very bad—heavy hills and sticky clay; still the driver, Mr. Montgomery, reports but one day missed during the year and that because of heavy snow drifts. The teacher, Miss Griswold, reports the average attendance very good, quite a number of pupils who have neither been tardy or absent during the year. The three sub-districts had previous to consolidation an enrollment of 21 pupils, or an average of seven per school, and a per capita cost of $45; there is now in the one school an enrollment of 35, and a per capita cost of $15.50.

Kingsville, the place next visited, is a small village two miles from the railroad, has a township high school, and to this school are conveyed all the children of the township, except those of a special district at North Kingsville. School has about 200 pupils, with six teachers, and with six wagons for conveyance of about 100 pupils. There were originally nine district schools with twelve teachers, now the one school with six teachers, besides the special. Careful inquiry elicited the fact that were it not for the jealousy between the two small villages there would have been but one school, and it was generally conceded that the work done at the central school was very much the best. The school year is nine months. From the township clerk we learned that there was a saving to the township during the first four years of nearly a thousand dollars, but since 1896 there has been an increase in the taxation of about 20 per cent over that of the former period. The salaries of teachers are higher, the teamsters receive from $1.00 to $1.50 per day, according to the length of the routs. Talking with the drivers we ascertained that they also act as daily mail-carriers. Here, too, we failed to find any of the people who desired to return to the old conditions. Quite a number asserted that were they obliged to return to the district plan they would move out of town.

Mr. W. M. Tyrrell, who lives in one of these districts lately incorporated in the Kingsville schools, says in reply to inquiry for a list of and reasons of those who voted for or against the centralization, "I only visited those who had children attending school and found, with one exception, all wanted their children taken to the Kingsville high school. The one exception had a boy five years old and thought him too young to ride so far. The opposition comes from those who have no children to educate or those who care not as to their children's education. Having to start so early in the morning is one of the objections raised. But where the plan has been in operation for two years or more nothing more is said about this objection. Another criticism is greater danger of contracting contagious diseases; so far we have not suffered from that cause. There is one difficulty that confronts us at present, and that is to obtain desirable drivers for our school wagons, persons who have good teams and will furnish nice, comfortable wagons. To obtain such persons a price should be paid as will induce desirable persons to apply.

"The advantages of centralization are many. the attendance is more regular, tardiness disappears, and in districts that are staying at home, like my own, out of a school of ten children there are from one to four that attend regularly. Much more interest is being taken and greater progress made, they have better literary advantages, better teachers, more competition in their work and in the end far more accomplished than would have been possible had they attended the district school.

I might add further, that it has been proven that the children have been more comfortable, where good rigs have been furnished, than when walking to the district school, as of old."

A RURAL TOWNSHIP.

From Kingsville your committee went into Trumbull county, there to find centralized schools where the whole township was centralized, where there were no villages and the population was strictly rural.

In Kinsman township, Trumbull county, a centralized school has been in operation since last November. Also in Johnson and Vernon townships for a year. All these townships are renting buildings at present, or, as in one case, they have moved two of the old district buildings together, that will be used until suitable central buildings can be built. Strifes and contentions between districts and between the advocates of centralization and the different township boards are matters of discussion before the courts. And we are forced to believe that if consolidation is so difficult under a township unit system, schools under the district system will not be consolidated in great numbers, if a plurality of district school boards have to do the work. However, a centralized school has been in successful operation in Gustavus, in this county, for about six years, and in Green township for about three years.

Gustavus had formerly nine districts in a township five miles square. Its central school building is located in the center of the township, and is a wooden building with four large rooms besides two small recitation rooms, a janitor and cloak room, is steam heated and seated with regulation school seats. Philo Gates, for thirty years township treasurer, says that the school building cost about $4,000, for $3,000 of which the township was bonded for ten years. The average aggregate taxation is somewhat increased, from $3,200 in 1896 to $3,600 in 1901. Four teachers are employed in this school and nine wagons convey the average of 160 pupils for eight months.

Mr. Lyons says that the only objection he has heard is that the boys are away too early in the morning and are not at home early enough in the evening to assist with the chores. Mr. Dick, a prominent farmer, says he knows of but two in the township who object to centralization and they are chronic grumblers.

When the organization was first voted upon, it was carried with but seventeen majority. Mr. Webb, also a leading farmer, says he had a girl under both systems, and believes that six months under the central system is as good as nine months under the old district plan.

Two years ago Nelson township of Portage county sent a committee to Gustavus, who spent four days investigating the conditions found here. They went all over the township and reported they found fifty-one in favor and seven opposed to central school; but of the seven but one had any children to send to school.

Hon. C. G. Williams, a prominent farmer of this township, a worker in Ohio farmers' institutes and a frequent contributor to the agricultural papers, in the "Ohio Farmer" says, in answer to queries: "We pay our drivers from $1.00 to $1.50 per day according to the length of route. Our average is $1.28. In adjoining townships, all of which are centralized, I think the cost is a little more, perhaps $1.40 per day. The routes are from two and one-half to five miles. This is very cheap, but the facts remain that there are always more bidders than routes. You see the small farmer can make the trip in about four hours, and a good part of the year he has nothing else to do, and nothing perhaps for the team to do. It is so much extra money." In answer to the question, is it advisable to have more than one central school, he says: "That is a local consideration, but with townships, such as ours, with a small hamlet near the center, most assuredly not. It takes numbers to make a good school, to give inspiration. Few, if any, of our townships have as many pupils as can be cared for, even under centralization. It would be folly to run two corps of teachers. As to expense, a careful going over of the books of our township clerk shows that we are paying something like $250 more per year under the new system than we did under the old. This is for the school year ending last August, as compared with the last year under the old system. This small sum, however, pays for two months more of high school than we formerly had. The per capita expense is no greater."

In Green township, just south of Gustavus, is also located a strictly centralized rural school. A two-story brick building, well built and located in the center of the township at a cost of $6,000, with an attendance of 170, transported by eight wagons, the cost aggregating for the township a little higher than under the old system. Here we had an opportunity of seeing the wagons come in with the children and leave with them in the afternoon. Everything moved with the precision of clock work. No friction anywhere. The drivers had no complaints to make, the children were satisfied, and talks with many parents throughout the township failed to elicit any adverse criticism. Rural mail delivery is practically in effect through the teamsters and children.

About six years ago the farmers of Aurora, Portage county, desiring to improve their schools, rented some rooms and made arrangements to convey the pupils of eleven districts to these central schools. It was my privilege to meet Harriet Mason, associate editor of the grange department of the "Ohio Farmer," at Cleveland, on my return home, and gleaned the following facts from her write-up in the "Ohio Farmer" of late date. "That after four years of preliminary trial the people had become satisfied with the question of permanency and two years ago erected one central school building to accommodate the 115 pupils in attendance. About two-thirds of these are conveyed in wagons. The average daily attendance is 95 per cent, as compared with 65 per cent under the sub-district plan. It is claimed that the aggregate cost of the eleven district schools was not far from $4,000 for eight months' school, while the cost of the central school has not exceeded $3,500 for nine and one-half months' school with,

as the people there say, a four times better school. To her question, is every patron satisfied? she received the answer, "We don't know of any who want to return to the old plan; everyone is satisfied."

While in Ohio I learned that there was some difficulty with the schools in Stark county, and on my return home I wrote a number of letters to New Baltimore inquiring the facts. The replies received were all of the same tenor. Mr. J. B. Bryan writes, "We had for three years a centralized school under control of township board, three sub-districts were abandoned and conveyed to the village of New Baltimore. This was just half of the township, the cost including conveyance was less than under the district system. We had a van for each district abandoned. Drivers were paid from $1.35 to $1.50 per day. Our roads were very bad a portion of the spring, otherwise quite good during the season. No days were missed, nor were the wagons ever late. Generally speaking, the patrons of the school were well satisfied. The attendance averaged 120 and very regular with no truancy or tardiness. But the other four districts seeing we had some advantages that they were not participating in were jealous and voted us out. The principal objections were the children had to leave home earlier and got home a little later.

Again, no half-days, all day or none. But what caused more dissatisfaction than anything else was that the pupils of the village district had to walk, some living very close to the line, did not like to see their neighbors' children ride while their own had to walk. We are now in a special district formed by the legislature two years ago, and have been holding school at two places in the district, both very poor schools, but the legislature just adjourned decided that only one school be held in any special district, some hope now to have the pupils again conveyed to a central location and have a good school."

A prominent farmer of Trumbull township, Ashtabula county, said to your committee, "that his township was centralized in 1899, the land is mostly heavy clay, the roads very poor a portion of the year. Originally eight districts reduced to one centrally located and employing three teachers. The ten grades will be advanced to twelve within two years. Strong opposition at first, himself the principal opponent. School is successful with increasing satisfaction, more interest on the part of both patrons and children. Seven pupils who were attending other schools away from home, now attend central school. Taxes increased about ten per cent, the increase almost wholly due to the condition of the roads."

H. S. Foote of Chardon, Geauga county, says: "We have no centralization or transportation, but many special schools through the county, most of them teach the eight grades, but are not satisfactory in that they destroy the remaining territory in a township for the district school. If the people could agree to act together the centralized system is best in its results, and would cost no more, but petty jealousies, the desire of small settlements to secure the location, the ambition to hold district office, the rough country and poor roads, have with us been the principal obstacles in the way of centralization."

Similar testimony as above, could be continued indefinitely along the same line, and while your committee, after getting upon the ground, spent very much more time in looking up the objections to the centralized plan, than in inquiring of its merits, we found the latter much the easier of the two.

A. E. PALMER.

TRANSPORTATION OF PUPILS.

First law permitting use of funds for transportation was passed by Massachusetts in 1869.

Growth of sentiment for consolidation and transportation of pupils as shown by the sixty-second report of the Massachusetts state board of education:

1888-89	$22.118 38
1889-90	24,145 12
1890-91	30,648 68
1891-92	38,726 07
1892-93	50,590 41
1893-94	63,617 68
1894-95	76,608 29
1895-96	91,136 11
1896-97	105,317 13
1897-98	123,032 41
1898-99	127,409 22
1899-00	141,753 84

Estimating the price paid for each team to be $25.00 a month for eight school months each year, and the number of pupils conveyed by each team to average twenty, the above means that in 1888-89, 110 teams were hired and 2,200 pupils conveyed, while in 1899-1900, 708 teams were hired and more than 14,000 pupils conveyed.

If we keep in mind also that this was done by the vote of the people, we shall see that the growth of sentiment in Massachusetts for consolidation and transportation has been steady and permanent, but not sensational.

According to the report of commissioner of education of 1899 and 1900, volume two, page 2582, the following states have adopted laws providing for consolidation and free transportation of pupils: Connecticut, by town school boards "when in their judgment the number of pupils is so small that the maintenance of a separate school is inexpedient"; Florida, Indiana, Iowa, Kansas, Maine—schools having less than eight pupils are discontinued, and the superintendents of schools are permitted to provide transportation for those who reside far from school, or may board scholars near school; Massachusetts, Nebraska—provides that the district board may contract for the instruction of all pupils in a neighboring district and transport them thither; New Hampshire—may expend not to exceed twenty per cent in conveying children to and from school; New Jersey, New York—may contract with adjoining districts for tuition and conveyance of pupils; North Dakota—when attendance averages less than four on ten consecutive days; Ohio, Pennsylvania—provides that transportation shall not exceed the expense which would be incurred in continuing school; Rhode Island—when any school has an average attendance less than twelve; South Dakota, Vermont—transports pupils living one and one-half miles from school, expense not to exceed twenty-five per

cent of the school moneys; Wisconsin may pay tuition and transport pupils.

WHAT THEY SAY OF CONSOLIDATION.

In 1898 G. T. Fletcher, agent of the Massachusetts board of education, sent out a circular letter of inquiry to the school officials of all the cities and towns of the state regarding history, progress, means, and results of consolidation of schools and conveyance of pupils. Two hundred replies were received. A general summary of the answers was compiled and a pamphlet issued containing the same. We give below some matter copied from the pamphlet:

"Probably Quincy was the first town to act under the law of 1869, having closed two schools in 1874 and transported the children to other schools."

In the year 1893 Seymour Rockwell, the veteran school committee man of Montague, said:

"For eighteen years we have had the best attendance from the transported children; no more sickness among them and no accidents. The children like the plan exceedingly. We have saved the town at least $600 a year. All these children now attend a well-equipped schoolhouse at the centre. The schools are graded; everybody is converted to the plan. We encountered all the opposition found anywhere, but we asserted our sensible and legal rights, and accomplished the work. I see no way of bringing the country schools up but to consolidate them, making them worth seeing; then the people will be more likely to do their duty by visiting them."

From another town came this suggestive statement:

"Once when a man wished to sell his farm he advertised, 'a school near.' Now he advertises, 'children conveyed to good schools.' Farms sell more readily now."

Other towns report as follows:

"We have closed only one school and that for two terms during the year, as the lot will revert to the former donor unless a school is kept in the building."

"The scattered population renders consolidation undesirable in our town."

"Planned at one time to close a school, owing to smallness of numbers, and convey the pupils to the next village. After consideration, decided that only an unwise parsimony on the part of the town could favor the project and it was abandoned forever."

"A few years ago the town tried to 'double up' the schools, and convey the pupils, but the people would not listen to the suggestion, mainly through ignorance."

"Attempted to build a new schoolhouse and grade the schools, but bitter opposition on the part of the older people defeated the plan."

"We believe in closing the schools when it can be done."

"Our rule is to keep a school as long as there are ten pupils in it."

In conclusion Mr. Fletcher says:

"While the weight of opinion is decidedly in favor of consolidation of schools, as being in the line of economy and efficiency, there are strong arguments in favor of the fair-sized, well-organized, thoroughly taught ungraded school. Small, isolated rural schools must exist in some towns of the state for years to come. The children are not responsible for the unfavorable conditions in which they are placed, and they are morally and legally entitled to a good education. * * * * * * * * * * * * *

The state is in duty bond to aid the town in securing to every child good educational advantages. If such influences of frugality and industry as characterized the home life in the country in former days can be kept up, and supplemented by excellent teaching, these isolated rural schools may do good work, even if they are denied the advantages of consolidation."

Governor Shaw of Iowa lately said in a message:

"In several counties of the state the experiment has been tried of maintaining a central township graded school, to and from which the pupils are conveyed in carriages at public expense. Wherever this plan has been adopted the results have been most satisfactory. The enrollment has been thereby invariably increased, and the attendance has been more regular; better teachers have been employed, with correspondingly increased scholarship; and in addition the expenses have been very considerably reduced. This is the experience, also, of other states where the practice has been quite general. I think this plan should be encouraged by specific legislation. I am not prepared to advise that, at present, it be made universal. It is probable that no more single-room, sub-district schoolhouses should be permitted. Some

encouraging legislation should, I think, be enacted, looking toward the establishment of graded schools within easy access of every farm of Iowa. This can be accomplished gradually by replacing existing schoolhouses with central buildings of two or more rooms, as fast as occasion to rebuild arises."

A leading journal of Iowa said editorially:

"For years observing people have felt that our rural school system was in a dreadfully crude state, that school facilities in the country districts of the state were wholly incomplete and inadequate, and among educators the subject has aroused considerable discussion. In many localities the districts entitled under our state laws to independent schools can scarcely furnish a half-dozen pupils, while fifteen or twenty are considered to make a good-sized country school. Under these conditions it is impossible to give thorough training. Grading of the work is impossible, inferior teachers are often employed, and the children do not receive the broadening social culture that association with their kind always brings. Following the lead of older states, several communities in Iowa have undertaken a consolidation of districts with eminent success. The story of Buffalo Centre's experience is typical, both in conditions overcome and objects attained. Every county superintendent, every township trustee, every woman's club, and every organization that has influence, should take this matter under consideration. There is hardly a county in Iowa where rural school facilities could not be improved by this consolidation of districts. There is no reason why the children of the farmers of Iowa should not receive the same excellent advantages that the children of the doctors, the lawyers, and the merchants enjoy. It can be done and should be done."

The following is taken from an article in the Forum of March, 1902, on "Consolidation of Schools":

"Though they would be unwilling to admit it, many rural taxpayers would more readily adopt a plan to lessen the expense of schools than one to improve them. But when the same plan improves the schools, lowers the tax-rate, and raises the value of real estate, the taxpayer ought to support it. In a larger number of cases, outlying farms that have been left because parents wanted better school advantages have been reoccupied—at an increased valuation—since the consolidation of schools has been accomplished. Land has sold more readily and at higher prices. Parents who intended to leave the country for the city have often been retained because the city's best blessing was brought within their reach.

The district school system makes possible, and often insures, the poorest teaching in the market. It is not an unheard of plan to elect 'a committee' pledged to favor one neighbor's daughter as teacher for one term, another for the second, and some other spinster for the third. * * * * * * * * * * * * * *

In the sixty-second annual report of the Massachusetts board of education we read that 'it has long been the policy of the state to secure to every child within its boarders the opportunity of a high school education.' As towns below a certain size are not required to maintain high schools, by a law of 1891 (changed in 1894) every town not maintaining such a school must provide for each suitably prepared pupil education in the nearest available high school. * * * * * * * * * * * * *

Wherever this scheme has been carried out it has been noticed that the boys and girls are more likely to remain at home; and that other families who seek residence in the town are of the better class."

To quote from an article by "Taxpayer" in an Ohio paper of December 26, 1899:

"We believe that in this age of steam and electricity, in which human ingenuity and human endurance are taxed to the utmost and in which the educational qualifications were never more imperatively demanded, that our boys and girls of the country districts should have educational advantages as nearly equal with those of the boys and girls of the city or special district schools as possible. We do not believe that the centralized system is a great panacea that will cure all the ills with which our educational system is afflicted, but we do believe it is an improvement over the old methods; that it has advantages that will more than repay the expense and inconvenience incident to reorganization. If centralization is a good thing we want it; if it is not, we want to know why it is not. Because someone we know is in favor of it, or opposed to it, is not sufficient ground upon which either to approve or condemn it. Let us investigate it thoroughly, study over it carefully and form conclusions slowly; also, in forming our conclusions, let us be careful that we consider the merits and faults of the system of centralization, and that we do not approve or condemn it on account of merits and defects that do not arise out of centralization itself, but exist in the school system as a whole or arise from its sources."

The superintendent of public instruction of Iowa, Richard C. Barrett, sent a circular of inquiry regarding consolidation and transportation. He summarizes the result as follows:

"The following table gives the briefest possible summary of the situation in Iowa with respect to the consolidation of school districts, closing of small schools and the transportation of pupils to a central school. It shows a lively discussion of the subject all over the state, and that many experiments have been and are being made, with the prospect that in many other places the system will be put on trial:

Consolidation has been tried in twenty-eight counties, transportation in thirty-five, and both in nineteen. Consolidation has been adopted by sixtey-three districts, and eighty districts have transported pupils at the expense of the district. In nine counties districts have been consolidated without providing transportation at the expense of the districts. In sixteen counties pupils have been transported where there was no consolidation.

The replies to the question as to what the sentiment in the counties is toward consolidation and transportation may be classified as follows: Favorable, twenty-five; opposed, twenty-six; divided, twelve; partly favorable, four; unsettled, five; growing in favor, twenty-three. Where the system has been tried and the results reported, it produced good effects in twenty-seven counties while in five it was doubtful. The patrons in twenty counties are reported to be well satisfied, while in eight counties there was some dissatisfaction, owing generally to bad roads.

These statistics do not include any estimates, or doubtful reports, such as 'several' schools consolidated, or cases of transporting pupils; all reports not distinctly favorable to the system have been classified as doubtful, divided, or opposed to it."

In another place Superintendent Barret says:

"In Washington township (Indiana) the pupils transport themselves. Some twenty years ago the trustee, W. S. Hall (he is the original promoter of concentration of schools in Indiana), rearranged the schoolhouses, making the number five instead of eight, and started a graded school. The township is six miles square, so that some pupils must drive four miles to reach the graded school. He was bitterly opposed by a majority of his people, but, by his tireless energy and determination, arranged the township so that money has been saved to the people and they can maintain seven months of school with a low levy. The truant officer has little to do in this township as there is a splendid school sentiment. Some patrons are now sending their children past other schools to get them into the graded school of three rooms and two years of high school. All eighth-year pupils, except two in the township, have attended the graded school during the past year, thus relieving the country teacher of some work."

"NOTE.—The schools in this township are ideally located. One central school, exactly in the middle of the township, has four teachers, three years of high school work and 111 pupils, as follows: Grades 1 and 2, twenty-eight pupils; grades 3, 4 and 5, thirty pupils; grades 6 and 7, twenty-five pupils, grades 8, 9 and 10, twenty-eight pupils. Sixty-eight pupils transport themselves without expense to the county. A barn was built on the school grounds, and pupils who drive, stall and feed their horses without expense. The four country schools in the township are located in the corners of the township, a mile each way from the township line. They have an enrollment of 102 pupils. It is said of this system: 'The system adopted in the township is a good one. It is economical; it makes possible a better supervision; it provides a high school and organizes the educational forces.'"

Supt. Alfred Bayliss of Illinois, has investigated the workings in his own state. In his report he gives the following account of an investigation made by a township in Warren county:

"In May, 1900, a committee of two citizens, one for and one against 'consolidation' was sent from a township in Warren county, Ohio, to investigate and report upon the facts as they found them in Gustavus township. The report, signed by both members of the committee, stated that persons known to favor the plan were purposely passed by; that fifty-four persons were questioned, and their answers were as stated in the report. Of that number forty-three were for, seven against, and four indifferent to the plan. Of the seven who declared against it, six were without children of school age, and of the four who were indifferent, none had children of school age.

'Of all the fifty-four, we find,' said the committee, 'but one person with children, who was opposed to centralization. I talked with the citizens in six or seven country towns in which the plan is in operation, in three different counties, and failed to find a single individual who did not approve of it.'"

THE STATE MANUAL AND COURSE OF STUDY.

In 1889 a committee of five was appointed by the state association of secretaries of the county boards of examiners to draft a course of study suitable for rural schools. This committee proceeded to gather materials from our own State and from other states and arranged a course for eight years, or eight grades. A pamphlet, containing this course of study and a few general suggestions for teaching, was printed and sent out to the teachers and school officers. This course of study was intended to be suggestive and was presented especially to the school district boards for approval and adoption. Later, the course of study was revised and an optional two grades added. The Manual and Course of Study as reprinted and rearranged by the present administration provides for eight grades, or years, of work, with the ninth and tenth scheduled if they should be desired by boards of education in any district, and especially in the smaller villages of the state. This course of study is presented to school district boards for adoption so that they may comply with the law in regard to this matter. While the course as given in the Manual has not been legally adopted in all of the districts, we are pleased to note that it is made the basis of the work in nearly all the schools of the state.

"Is a teacher required to teach studies above the eighth grade?" is a question which has many times been asked of the Department by teachers in the rural schools. I desire to call attention to the law on prescribing a course of study for schools in any district. Paragraph 4680 of the compiled laws is in part as follows:

"The district board shall specify the studies to be pursued in the schools of the district," and the same section provides for the selection and adoption of text books. Under this law a school board is required to specify the course of study and then any teacher hired by that board is required to teach the course of study that has already been prescribed for the school. If a teacher goes into a school under contract and finds that no course of study has been specified, as is very often the case, such teacher would be justified in following the course as given in the State Manual and Course of Study. If the district board in any district should adopt the course of study as given in the Manual and deem it advisable to add to that some or all of the studies of the ninth and tenth grades, the teacher who engaged to teach the school would be required to teach those branches.

Much time, labor and research has been employed during the last ten years in developing the Manual and Course of Study as we have it today. It has been compared with similar courses in other states and we have received a large number of requests from parties in other states for this work. The purpose of the Department in preparing and furnishing the Manual and Course of Study is primarily to systematize the work of our schools and assist school boards in deciding upon a course of study, and especially to be suggestive and helpful to the younger teachers of the State by giving to them the general scope of work to be accomplished, and some specific instruction as to the methods to be pursued. No

teacher should follow any course of study slavishly, nor seek to make every child fit into the same pattern, nor follow precisely the same plan. So far as is consistent with the time and circumstances the teacher should seek to develop the individuality of the child. The couse of study is to be fitted to the child, not the child to the course of study.

The grades as at present arranged in the Manual and Course of Study provide sufficient work for each grade for nine months of school in each year and it must be understood that if any district school is not in session during the entire period, of course all the work outlined cannot be completed, and the class should continue in the same grade a sufficient length of time in the next school year to complete the work laid down, and then be promoted, or take up the next year's work. It is to be understood, also, that promotions may occur at any time during the year, and not necessarily on the last day of school.

The criticism that has sometimes been made in regard to the grading of our schools has been caused, undoubtedly, from the inexperience of our teachers, and misunderstanding on the part of children and patrons of the purposes of the Course of Study, but we are satisfied that a careful, thorough study and use of the Manual must produce good results. Let it be understood, then, that no one has authority to prescribe a course of study for any school except the school district board, and if the board in any district deems it desirable to have eight, nine, ten, or more grades they have the authority to adopt such a course and require the teacher or teachers to follow it. We present the Manual and Course of Study to school officers, believing that, up to the present time, it is the best plan that has been devised and it is the duty of the Department and of school officers to alter or change this course of study whenever conditions demand it. All our people today believe in the orderly and systematic training and development of children, and in giving to teachers such assistance as shall best produce these results. Believing that the plan now presented, meets the conditions that we find today, and knowing it to be adjustable to such conditions as may arise, the Department urges that the plan be followed and adopted by school boards and by teachers.

ADVANCED GRADES IN RURAL SCHOOLS.

During the past few years educational topics of various kinds have been receiving careful attention at the hands of our people and our educators. At the present time there is a revival in regard to the question of rural schools, and from the discussions that are taking place we must surely arrive at improved conditions. Various methods are being debated as to the best means of increasing the scope of instruction in rural schools. Valuable as rural schools have been, it is generally conceded that their scope is too narrow. The rural school, or the school with rural surroundings is a necessity to our people, but these schools must be well equipped and must have a course of study that meets the needs of the young people in order that they may accomplish the great task before them. In discussing the rural school problem, the following question has been propounded: "Why not add to the eight grades generally pursued in rural schools, the ninth and tenth?" the purpose being,

of course, to increase the efficiency of the school by affording wider educational advantages at home for the young people.

From the standpoint of the law there is no reason why this cannot be done. The school board has absolute authority over the course of study, but it may be well to examine existing conditions to see if the plan is feasible or desirable from the standpoint of the school and the teacher.

In the average country school, we find from five to eight different years, or grades, of work being done. This is necessary on account of the varying ages, degrees of advancement, irregularity of attendance, and length of the school year. The average rural school in a majority of the districts of the State has six grades represented. Consequently, the teacher has at least twenty-four classes per day. This may vary one way or the other, but we have given the average as found from observation and from reports. The school day consists of five and a half hours, or 330 minutes, exclusive of intermissions; and, making no allowance for movement of classes, individual help by the teacher, accidents, etc., this gives on the average fourteen minutes for each recitation. By a judicious arrangement of the program, the teacher can have five minutes for some classes and twenty minutes for others, which is all too little for the deep and lasting impression which we expect will be made in the schoolroom. Now, in many of our country schools all eight grades are represented. I visited schools last winter where the teacher had from thirty to fifty pupils and eight grades represented. This means from twenty-eight to thirty-two classes per day, which reduces the average time for recitation to ten minutes or less.

In these schools I found that in order to do anything like justice to both the younger children and the older ones, the teachers were obliged to have recitations, for instance, in arithmetic, history or other subjects on alternate days, and also alternate the grades, having one class recite on Monday, another class of the same grade the next day and so on, thus having one-half as many recitations in advanced subjects and doubling the time for recitation. I found in a few instances, the teacher hearing certain classes in the morning before school and others after school at night, yet none of these expedients met the needs of the pupils or produced the results that are most desired. The teacher is compelled to devise a scheme to save time and while doing this she uses energy that could be put to better use.

The foregoing condition has not been brought about by the grading of the school, nor is it a result of grading. In fact, with the large number of subjects now taught, if the schools were not classified, it would be impossible for the teacher to meet the conditions; but the number of subjects taught, the irregularity of attendance, the constant transfer of pupils from one school to another, and the lack in uniformity and supply of text-books are the chief causes of the apparently crowded course of study.

Many people are demanding that the schools teach only what is practical, and the question "What is practical" arises. Can we omit language work, geography, history, civil government, physiology? No one would for a moment think of omitting any one of these subjects. In fact, when we demand the practical, we must include with the subjects now taught in our schools, drawing, the elements of music, elementary

manual training, and nature-study or elementary agriculture. So that the demand today is for more subjects and not less than are now pursued. In the face of the facts as they exist, the question comes home to us how can we increase the course of study, how can we add two more grades to the work that is already being done? There may be several ways, but it seems to me that these problems must be solved in one of two ways. First, we must employ more teachers, or, second, have fewer and larger school districts with the same number of teachers. No one person can perform all the duties required of a good teacher and properly manage twenty-eight to thirty-five classes each day. The imperative demand in our school work is more time for the teaching of each subject. Where the teacher has a large number of classes, the children are hurried from one subject into another and the knowledge gained instead of being clear and distinct becomes a confused mass.

We must recognize the fact, also, that the expense for conducting our schools today in a majority of districts is all that the people ought to incur. In traveling over the State, I have observed that the majority of rural school districts contain from three to six sections of land. This makes a very small taxing area, consequently a high rate of taxation. Now, if we can put in some instances two of these districts together, and in others three or more, and put in two teachers, we can increase the number of grades in the school to ten and give each teacher five grades and this will, in a measure, accomplish the end desired. In case three or four of these small districts can be put into one, with two teachers, we shall be able to decrease the expense by the salary of the extra teachers now employed. There are a thousand districts in the State having an enrollment of less than fifteen pupils and an average attendance of eight. If these thousand districts could be combined with others, instead of employing that number of teachers, three hundred teachers could teach all the children now enrolled in the thousand districts, for, if they are in the same grades, one teacher can instruct forty children as well as fifteen. Again, by uniting these two or three districts, we shall not make the district so large that the children will not be able to walk to school. In many cases, the two school buildings already built could be moved and placed together and used so as to avoid building a new schoolhouse. In others, where a new house is needed, the one house with two rooms could be built more cheaply than two separate buildings.

There is a great demand that the children shall receive in the public school not merely academic or text-book instruction, but that they shall be taught to use the eye and the hand in such a way that they may become more skillful and more useful as they go out into the world to gain a livelihood. It is also highly advisable that our young people in the country shall receive instruction in what we may call nature-study, that is, that the boys shall learn the elements of soil necessary to produce the different crops, and to decide whether crops will be profitable or not; that they shall know the use and value of the different trees and plants, and at the same time come to appreciate the beauties of the world in which they live. The busy mother cannot always give to her daughters instruction in domestic science and in regard to the duties of the housewife such as would be valuable for them to know. Consequently, some work along this line may be introduced, with great profit, into the

public school curriculum. These things are practically impossible in the rural schools as they exist today, because the people in order to supply the large number of schools with teachers are obliged to employ persons of immature years and with deficient training for the teacher's work. A smaller number might be secured who would be competent to instruct the children along the lines we have indicated.

It would seem that the ideal condition might be further realized, if after completing the work of the home school, the pupil could enter a rural high school at the center of the township in which the eleventh and twelfth grades and more specific instruction in manual training and elementary agriculture were taught. The times demand that every child shall receive at least ten years of school training, and this can be accomplished if the patrons will agree to unite with their neighbors and provide a better teaching force. This means that we must demand of our teachers better scholarship and wider experience. The average person who holds a third grade certificate is not able to teach the advanced branches, and, if we demand the higher scholarship and experience, teachers will have the right to demand better pay.

Keeping in mind the results we desire for our children and the necessary expense in connection therewith, the great school problem is: "How shall we secure the maximum result for the minimum expense?" It seems to me that the plan here suggested will to a great extent solve the problem. By increasing the taxing area to the proper degree, we shall decrease the rate of taxation and at the same time we shall not take the school away from rural surroundings. It will be conceded that it is better for the children to walk two miles to school and attend a good one than to go half a mile or less and attend a poor one. As a general proposition a small school is a poor school, and if we expect to get maximum results, we must avoid the small school. It is probable that the system of centralization or consolidation, if applied to Michigan, would produce much better results than we get today, but in some instances at an increased expense on account of the necessary transportation of pupils. This would not be true in every locality, for there are many counties in states where this plan is in operation which testify to the fact that under the consolidated plan, even with transportation, their expenses are less than under the old system. But, in view of the fact of the excellence of our high schools as they now exist, and they exist in almost every locality, it would probably be wisest, at least for the present, not to attempt such an extensive system, but we can at least consolidate some of the smaller districts and with even the same number of teachers we employ today secure better results and at no greater expense.

In every line of business today, the test of success is the result secured, and the business man, while always counting the cost, does not hesitate to increase his expense account, providing he can thereby increase his income. Those who have charge of the public schools must not be less appreciative than the business man. They must demand good schools and educational results, even at the price of increased expense. The dollar must not be held so close to the eye that it shuts out a rational view of the world and its needs. The policy that has been pursued in this State of bringing the school to the child has produced the small districts, the high school taxes, and the poor results we are reaping today.

We must not forget the taxpayer, but the time has come when we must consider *first* the welfare of the child. As I have said before, by increasing the size of the district we shall bring better opportunities within the reach of the child, decrease the rate of taxation, produce better schools, better opportunities and larger fields of usefulness. The schools will not be taken from the control of the people, whose duty it will continue to be to provide the best possible opportunities for educational progress.

This change it seems to me is wise and necessary if we expect our children to meet the requirements upon their ability which the future will surely demand of them. In considering this important subject, we must be broad-minded generous, tolerant, wise, and patriotic. *We* means all the people, for every man, woman, and child in the State is concerned with the proper solution of the school problems of today, for as they are solved today will they make or mar the future.

SUPPLY AND TRAINING OF TEACHERS.

Although progress has been made manifest in the various departments of school work, such cannot be said regarding the supply of teachers, for in many counties the commissioners have experienced great difficulty in securing teachers well qualified for the work.

From our three normal schools there were graduated in all courses during the year ending July 1, 1901, 392 students, all of whom, when enrolling in these schools, had declared their intention to teach for a longer or shorter period of time in our public schools. During the same year there were granted teachers' certificates to 75 graduates of the University, and 75 students received certificates from the denominational colleges. Taking these sources all together, there was therefore a total of 542 which was the addition to the teaching force of the State of those who had profited by definite pedagogical instruction. During that year 6,967 teachers were employed in the graded schools of the State, of whom 1,925 were graduates of normal courses. Considering the fact that large numbers of these teachers, for one reason or another, drop out of the work each year, it will be seen that the number who are qualified to take charge of schools is quite insufficient to meet the requirements of the already existing graded schools, leaving very few, if any, for the ungraded schools where professional training is as much to be desired as in those which are graded.

The report of this Department for the year ending June 30, 1901, shows that of the 15,183 qualified teachers in all the schools of Michigan only 1,925 hold State or normal school certificates. The same report shows that of the 13,032 persons applying to the county boards of school examiners for teachers' certificates 7,014 received such certificates, and of the entire number applying only 648 reported having had any normal training whatever. As nearly as we can estimate, 3,000 persons inexperienced in teaching must annually enter the teachers' ranks in this State in order

to supply the growing needs of the schools and the vacancies caused by teachers leaving the profession for various causes.

With an attendance in our Normal College at Ypsilanti of over 1,000 prospective teachers, and nearly as many more in attendance at Mt. Pleasant and Marquette normals, it will still be seen how much we lack of supplying all the schools of the State with professionally trained teachers. But it should be remembered that the problem for the entire State is a very large one; and that the average teaching period is comparatively short. Our citizens will need to continue and augment the good work which may be said to be only fairly begun. The movement inaugurated by the citizens of southwest Michigan which was crystallized into the passage of a bill establishing an additional normal school was in answer to a legitimate and righteous demand that some relief should be afforded by which an additional number of professionally trained teachers could be provided. Still it is conceded that when the work of our rural schools is contrasted with that which is done by the rural school teachers in other states, we do not suffer by the comparison; and when we look for a reason for this, we must accord a large meed of praise to our county institutes and teachers' reading circles. The citizens and taxpayers ought in this connection to remember, that both these lines of effort which are far-reaching in their effect, are carried on by the means contributed by the teachers themselves and not by the money of the State.

Every teacher in Michigan should be a properly qualified teacher. By which is meant those who in their preparation for this work have been in contact with living teachers of experience who are capable of imparting not alone book knowledge, but professional spirit and training based upon the proper principles of pedagogy. If we are to make progress in efficiency in our elementary education, it seems desirable that there should be some provision made for a considerable increase in the number of trained teachers for our schools. In the aggregate, taking the whole State into consideration, it is true that very satisfactory progress has been made. Not to believe this would be to cast an unfair criticism upon the very faithful and conscientious work done by our county commissioners and the teachers as well. Nevertheless, it must be said that, in some portions of the State, education is not so effective or satisfactory as could be desired.

Only words of praise can be given to the hundreds of young people who by their own efforts, supplemented by their attendance upon the district and graded schools, prepare themselves for passing the required examinations and are finally engaged in our schools as teachers. At the same time it is greatly to be regretted that anyone should be permitted to teach who has not had the benefit and inspiration which comes from attendance upon a training school where contact with a live and experienced teacher is possible. Not to have had this, results, in some cases, in the blind leading the blind.

And this leads me to a brief consideration of the methods in use by which the qualifications of candidates for the work of teachers shall be gauged and their preparation determined. To make as the basis of such a judgment the answers obtained from a set of questions, however skillfully these are prepared, is to depend upon that which gives only a partial and imperfect view of the candidate's fitness for the responsible

work of the teacher. These questions may, in some degree, make apparent the book knowledge possessed by the candidate, but even here it is true that mere detached items of information do not constitute an education, nor are they a proper gauge of ability. Questions which throw a responsibility upon the one examined to exercise his own personal judgment, or which compel him to elucidate or illustrate some general principle or method, will give more intelligent results, provided the examiner who reads and marks the paper is sufficiently broad to give due allowance to the individual opinions of the writer. The question is a large one and cannot be discussed here, but our generation will "rise up and call blessed" the man who will provide a proper substitute for the present very imperfect method of the examination of teachers.

TEACHERS IN THE RURAL SCHOOLS.

The rural schools are under the direct control of the county commissioner of schools. He is required by law to visit each school "at least once during the year, and to examine carefully the discipline, the mode of instruction, and the progress and proficiency of pupils." The commissioner has performed the *legal* duties of his office when he has visited each school once during the year. It will thus be seen that the law does not provide for much supervision of the rural schools. In most counties it is impossible for the commissioner with the most strenuous efforts to make more than two visits during the year, so that the rural schools are practically without supervision. The commissioner can only make his visit and suggest such things as he deems necessary to the improvement of the school. He cannot return in a few days to see if his suggestions have been followed, but must rely upon the loyalty of the teacher. The teacher usually has had no normal training and often little or no experience; she is in consequence not competent to incorporate ideas new to herself into her work, and after a few faint attempts to do so drops back into her old habits, relieving her conscience by the thought that the term will close before the commissioner can again visit her school. The benefits of school visitation, so far as introducing modern methods into rural schools is concerned, are thus largely nullified. The commissioner is a great educational factor, many times a power, but he cannot supply the needed training for his teachers. That must be done by schools especially designed for the purpose. Our present normal schools cannot do this, and another State normal school would not solve the problem; for if it were possible for our normal schools to prepare a sufficient number of teachers for all our schools, still, under present conditions, the problem would not be solved, because rural teachers with rural school salaries cannot afford the expense necessary to attend a normal school situated at a long distance from their homes.

What, then, is the solution of the problem? Our answer is, take the normal school to the teacher. A law should be enacted providing for a County Normal Board, of which the State Superintendent and county commissioner of schools in each county should be members. Such law should clothe said County Normal Board with the following powers:

First. To designate, upon application, the graded school that might

add to its system a county normal training department; provided, that not more than one such school should be designated in any county.

Second. To determine the courses of study to be pursued, which courses should not be less than 20 weeks.

Third. To fix the qualifications for admission.

Fourth. To grant certificates upon completion of courses, which certificates should qualify holders to teach in the rural schools only of the county in which said certificates were granted; provided, that the county board of school examiners of any county might indorse such certificates, in which case they should be valid in such county.

The law should further provide for State aid to such schools at a certain amount per pupil per week, or a certain per cent of the cost of instruction, the amount in each case to be limited, and to be paid upon the certificate of the Superintendent of Public Instruction stating that the conditions of the law had been met by the district. This will make a fixed annual appropriation directly for the benefit of rural schools.

The idea of training-classes for rural teachers is not new. A law was enacted in New York in 1894, permitting the establishment of such classes, and appropriating annually $60,000 for State aid. The 1901 report of the New York superintendent of public instruction contains the names of one hundred such schools. Wisconsin in 1898, passed a law permitting the establishment of similar schools, and appropriating a limited amount of state aid. The first school established under this act was located at Menominie in Dunn county in 1899. The school is so popular that it is filled to overflowing, several applicants having, in consequence, been refused admission. It is stated that in one or two years more practically every teacher in the county will have had some training in this school.

Rural school teachers are as progressive as graded school teachers, and if facilities for normal training are placed within their reach they will not be slow to take advantage of the opportunity. With trained teachers in the rural schools many of the present difficulties will be solved.

MANUAL TRAINING IN RURAL SCHOOLS.

The value of manual training as a factor in education has passed beyond the stage of argument. This value seems to be recognized today by educators generally and "education through movement" is now proclaimed on every hand.

Acceptance of this gospel of education, however, is not sufficient. Acceptance is passive. It must be quickened into action.

The education of the child cannot properly be begun, much less successfully completed, without the development that is reached by manual training—the use of the hand, eye, and other sense organs. The general feeling is now that only large cities can give these benefits, but it is not beyond the boundary line of the possible to think of every boy and girl as enjoying these advantages.

We are apt to contract the meaning of the term "manual training." It is quite generally thought of as tool-work for boys, and sewing and cooking for girls. True, manual training began with this idea, and for many years this was the central thought; at certain stages of develop-

ment it is still the basis of work. But it means more than this, and inquiring minds have been asking "why is this factor of development delayed?" "Why not put it into the lower grades, even into the first?" It is not difficult to plan a course of study that should include hand-work for all grades. Such a course might consist of a variety of exercises, beginning with paper-folding for the smallest pupils, followed by paper-cutting, this in turn to be succeeded by card-board work. Following the card-board work would be the work with thin wood and knife, and later the tool-work. We would thus bridge the gap between the kindergarten and the sense-training of the first grade, and the tool-work of the higher grades.

But the commonly accepted idea of manual training needs a further enlargement. It means more than hand-work. It has to do with every form of sense-manipulation; it is careful hearing and exact seeing; it develops the sensitive touch and the critical hand.

With this broader understanding of the term, we may say that all object teaching and sense training is an elementary kind of manual training, to be succeeded later by hand-work and tool-work, just as perception—the first step in mind development—is succeeded by the memorizing and reasoning processes. This being true, every school has manual training to that degree in which it has object teaching and hand-work. In other words, the true primary teacher is already a manual training teacher.

But while the primary work in every modern school includes manual training, the majority of teachers, especially in the rural schools, omit this feature in all grades above the first. It is to this higher grade work in rural schools that I would continue to apply the underlying principles of manual training—continuing the object teaching, and adding the measuring, the drawing, the cutting, the fitting, the designing, and the color-work.

"But how can the country teacher, already over-burdened, add another burden, and one, moreover, with which she is not familiar?"

The question is a pertinent one and far be it from the present purpose to add anything to the burdens of the already overworked rural teacher. However, it is a safe proposition that that teaching is easiest which is closest to Nature's method, and it can be shown that manual training is a natural method in education. Consequently continuation of the manual training idea in the higher grades would not of necessity add to the teacher's labors. On the other hand, by the rapid development of the observation and judgment it would remove much of that exhaustive work of the teacher, namely, the interminable explanations which many teachers wrongfully think should constitute so large a proportion of their work in the ordinary primary school.

For example, there should be placed in the hands of each pupil studying measurements a foot rule and a yard stick, and he should be requested to make careful measurements with these. Call his attention to the fact that the ordinary sixteen-foot board makes a good rod-stick with which he should measure the school yard and some adjoining fields. Again, have him *walk* a mile that he may have a distinct physical sense of that distance, and it would not be amiss to have him measure off twenty or forty rods of stout cord and with this measure the mile.

For the study of liquid measure and dry measure every school should

possess the following measures: gill, pint, quart, and gallon; the half-peck, peck, half-bushel, and bushel. There should also be a large box containing at least a wagon load of clean sand or gravel for the purpose of practical examples in the use of these measures. Think of the delights, as well as the educational value, of a sand pile for a child in the third or fourth grade!

In the study of avoirdupois weight—and no other should be taught in the lower grades—there should be a set of scales with at least the following: ounce, four-ounce, half-pound, four-pound, and two one-pound weights. These the pupils should use in weighing out such amounts of sand as the teacher designates, and there might be introduced here the use of money in paying for sugar, tea, coffee, etc., (sand) weighed upon these scales, neatly done up in packages and paid for with toy money, or with such money as the pupils, guided by the teacher, might make. All this work should be planned carefully and prepared by the teacher in the shape of carefully graded exercises or examples. This might be supplemented by examples furnished by the pupils.

With this work correlate such exercises as the following:

Let each pupil measure and estimate the capacity of his dinner-pail, its weight including his dinner, and the weight of the empty pail. How much food does a healthy boy eat in a day? How many bushels of wheat will the wood-box hold? Measure the diameter and circumference of a big apple; weigh it and estimate the specific gravity. Weigh a pint cup, first full of water, then empty, and then full of sand; compare results and estimate specific gravity of sand. Let every pupil measure his height, at least once each month, and record the same in an appropriate table. Take the chest measurement of each pupil, (1) after expiration and (2) after forced inspiration, noting the expansion.

The foregoing work would be manual training in numbers and arithmetic below fifth grade.

In the fifth and sixth grades should come measurements of fields, finding the areas in acres, and values at prices as near actual value as can be determined. Such pupils should become very familiar with the forty-rod, eighty-rod and mile measures; and when the district wood is drawn to the school ground and piled, no teacher should miss that fine opportunity of making his teaching partake of real life by having each pupil measure the wood and compute its value, handing in sealed results; after which there should be comparisons, corrections, and explanations for such as have made mistakes.

The variety of exercises that suggest themselves for this work is surprising; and the benefits that result are so manifest that it seems only strange that the practical farmers have not long since supplied the above apparatus and insisted that it be used in every school.

Such work contributes to mental growth. Suppose, for example, the pupil is asked to ascertain the number of pints in a gallon. He takes the pint measure and with it fills the gallon measure, counting in the meantime, the number of times he repeats the operation. In doing this his hand and eye minister to his judgment and observation and he unconsciously appreciates the fact that the hand and eye are servants of the judgment. Soon he is asked to tell the number of pints in two gallons, then in three gallons, then in two and one-half gallons, etc. But he will soon cease to measure to ascertain these results; he will image the

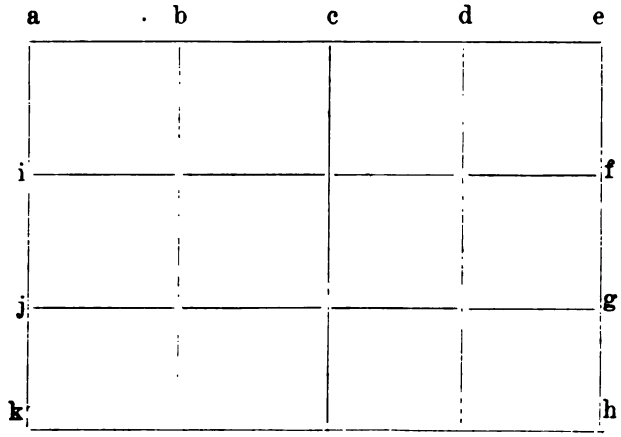
operations instead, his imagination being limited and guided by his arithmetic.

During these processes the pupil has received certain benefits: He used his will to direct; his nerves and muscles obeyed; and the mind took cognizance of certain movements.

Or, the pupil is asked to measure the top of his desk. He takes a foot rule and carelessly "walks" it across the top of the desk and announces that "it is between three and four feet." "But," says the teacher, "I knew that; I wish to know its *exact* length." Then he lays the ruler carefully to the edge of the desk, marks the separate foot measures, announcing that it is three feet, seven inches. The teacher compliments the pupil for having done better work in measuring, but at the same time intimates that the measure is not yet exact. Again the pupil measures, and more carefully. Not only is the half-inch noted, but quarters, and eighths, and even sixteenths. And the strange thing about the work is that each added subdivision adds a new interest to the operation, until finally the pupil, with an air of triumph, announces that the length is exactly three feet, five and seven-sixteenths inches.

During this last operation the benefits of the first operation were greatly overshadowed. In the first merely non-voluntary attention was given to the problem and the results were correspondingly meager; his observation acted while his mathematical powers noted. But in this final operation every sense was in intense action and every mental activity at work. The eye must see accurately; the hand must place carefully—there must not be the variation of so much as a hair's breadth. To accomplish this there must be more than casual observation; there must be concentration, will-power, and the most perfect muscular control possible. The last operation was educative in a high degree in that it helped to *develop concentration and accuracy*, without which no one ever rises to the height of his powers.

Again, suppose the teacher places upon the blackboard a rectangle, say three feet long and two feet wide, divided and lettered as indicated below:



Then he requires the pupils to draw a similar figure upon their slates or tablets to a scale one-fourth as large. Before attempting the drawing the teacher should ascertain that the pupils understand the method by which their measurements may be determined. If they cannot do this a method might be developed something as follows:

Teacher. As your slates are too small to make a figure as large as this upon them, you may make each corresponding line one-fourth as long. We say of such work that we draw to a scale of *four* inches to one inch.

Q. How long shall you make the lines?
A. One-fourth as long as long as those upon the board.
Q. What do we call such work?
A. Drawing to a scale.
Q. How long is this figure?
A. Three feet.
Q. How many inches long?
A. Three times 12 inches or 36 inches.
Q. How many inches wide is it?
A. Two times 12 inches or 24 inches.
Q. How long were you to make the lines upon your slates?
A. One-fourth as long as those upon the board.
Q. How many inches long should the figure be upon your slate?
A. One-fourth of 36 inches or 9 inches.
Q. How wide should the figure upon your slates be?
A. One-fourth of 24 inches, or 6 inches.

Teacher. Very well, draw a figure shaped like this, 9 inches long and 6 inches wide, dividing the length into four equal parts, and the breadth into three equal parts."

After the figure is properly drawn and the measurements verified by the use of the rule then might follow a series of questions, as:

1. How far from *a* to *b*?
2. How far from *a* to *e*?
3. What part of the line *ae* is the line *ab*?
4. What is ¼ of 9 inches? Prove it with the rule.
5. What is the length of the line *ak*?
6. What part of the line *ak* is the line *ai*? *ef*?
7. What is ⅓ of 6 inches? Prove it with the rule.
8. How far from *a* to *b*? Prove it with the rule.
9. How far from *b* to *c*? Prove it with the rule.
10. What is the sum of 2¼ and 2¼?
11. How far from *a* to *d*?
12. How far from *a* to *e*?
13. Take the line *ad* away from the line *ae*. What is left?
14. Subtract 6¾ from 9.
15. What is the length of each of the lines *ab*, *bc*, *cd*, *de*?
16. What is their combined length?
17. What is 4×2¼? Prove it with the rule.
18. How long would the figure be if two of the divisions were taken off? Prove it with the rule.
19. Subtract 2×2¼ from 9.

20. Take one of the divisions of the length from the width. How long a line is left?
21. Subtract 2¼ from 6.

These questions are only suggestive, but here is a field for practical manual training work in addition, subtraction, multiplication, and comparison of integral and fractional measurements that will open the eyes of many a pupil struggling blindly with mere "figuring out" processes.

All such work is based upon the manual training idea. It vitalizes study and makes such subjects as measurements in arithmetic living realities. Such teaching would break down the barriers between school life and real life. I need not add that the work would also be delightful for children. Indeed, the only objection I have ever heard raised against such teaching, by a parent, was, "Too much like play." It is not necessary to say that the subject of "weights and measures" studied in this manner would need no "explanations."

This much of the manual training idea can be wrought out in any school, and while the benefits might not be as complete as we might wish, they are just as real and as far-reaching as those in the most completely equipped school in the land.

I desire to urge upon both teachers and officers the importance of this work. Teachers owe it to their profession to investigate all questions of educational advance, and duty to their pupils demands that every phase of work that will assist pupils in mental growth should be thoroughly employed.

The Department of Public Instruction does not advise the purchase of high priced school apparatus, but instead it would most earnestly advise and urge that school officers provide such material as is mentioned here, and having provided it, insist that teachers shall care for it and use it. Our teaching of arithmetic is too bookish, too impractical, and too far removed from real life. As a result, much that is taught is not understood, and our young people leave school with their eyes but half open. We feel certain that manual training is one of the keys to the situation.

SOME GRADED SCHOOL PROBLEMS.

The thought, the experience, and the theory of our best educators have been devoted to perfecting the graded schools. Much has been accomplished, but they are not perfect. The problem of equal educational rights for all is not solved. The question as to what the school should do for the child is still unsettled. The educator and the business man still disagree as to what is a proper course of study for the masses. Utility in education will not down. The signs of the times indicate that the ultra-intellectualist is slowly but surely surrendering some of his ancient strongholds. It seems evident that city schools must make some special provision for that large contingent which does not go beyond the high school, and the still larger one that does not finish the high school course.

Many cities already have manual training and commercial courses. The results of their introduction seems abundantly to justify their continuance. I heartily indorse the idea, not only as a means of retaining young people in school, but because I believe some form of manual training to be an essential part of an education, and also, that a commercial course may be so arranged that it will be a most excellent mental stimulant and a great intellectual benefit.

Another question is that of grading and promoting pupils. Close grading assumes that every pupil can do nearly the same school work in the same time. We think we understand the normal five-year-old, six-year-old, seven-year-old, and know how much reading, numbers, language, science, etc., he ought to compass. Having arranged the course of study accordingly, we attempt to fit every pupil into it. But every teacher finds that pupils do not easily fit into these grades, and then begins a struggle distaseful to pupil and nerve-destroying, sometimes conscience-destroying, to teachers. The questions of aptitude, intellectual development, character-building, are made subservient to "making the grade." Then follows the inevitable cramming process, and the resulting destruction of originality, personality, and self-reliance—a devastation that never ought to be truthfully charged against any institution, much less an educational one.

On the other hand, there are those pupils who by nature or because of environment have a grasp and comprehension that is far beyond that of the normal child. Such find the work too easy. They make no great efforts, and are thus defrauded of the best results of study. The easy-going work makes them easy-going pupils. They become indolent; they are put to sleep. In this manner many a brilliant intellect has been lost to the world. If it is an injury to the dull child to stretch him to the grade, it seems a crime to the brilliant one to cramp him into it.

Thus there arises the mooted question as to what class of children should be made the basis of rigid grading. It would be well for us often to address ourselves to the question as to what makes the apparent

difference in the mental powers of children, and as to whether there *is* much difference. If we do this we shall find some puzzling paradoxes; for instance, we shall find that many "dull" pupils are mentally strong, and in their sports are often leaders; and that in those sports that demand quick thought and originality their minds often work with rapidity, accuracy, and great ingenuity. If we carry the investigation into the activities of life, we shall find many successful business men with minds vigorous and active, who confess with sadness that they "never could learn books." And sad it is; but in my opinion it would not be true, except that some one "blundered."

We are led to conclude that the so called difference in the mental power of the mass of pupils is usually apparent only. The average child is an average child. What seems dulness in some is usually ignorance of methods of study, while the so called "bright child" has simply adaptability. He, by intuition or practice, has learned how to attack a subject. His lesson, therefore, is easily mastered. He really makes much less mental effort than the sluggish pupil. What teacher cannot call to mind many "dull students" who later became excellent scholars? The explanation is not that by a miracle a better brain was supplied, but that the pupil accomplished the miracle of learning how to study. Indeed the one necessity in accomplishing the work of a course of study is really to teach pupils how to study. Out of this necessity has grown the

BLOCKING SYSTEM.

This is a system by which some specified portion of a teacher's time is devoted to individual work. This is not intended as work in assisting, but in guiding. Its application seems most valuable during those years marking the transition from oral instruction to text-book work—the fourth and fifth grades. It usually contemplates certain periods during each day, in which the teacher has no class work but gives all her time to the investigation of each pupil's method of study and to improvement of poor ones. There are various ways of doing this according to conditions. One teacher finds it necessary to sit beside a pupil and do work with him in arithmetic, or to go with another to the dictionary or some other reference book and allow him to see the process of "looking out" a question, or by questioning another to show him how to sort up the essential points in a lesson. One pupil needs special help in cultivating accuracy of memory; another in learning neatness in preparation of lessons or special drill in writing, etc.

All these exercises also give to the teacher definite knowledge of the peculiar characteristics of each pupil. Thus not only does the teacher open the gateway to scholarship for the pupils, but she also gets a special insight into the movements of the pupils' minds and a clearer view of the effects of the environments of the home and social life of the child. Thus both teacher and pupil learn how better to direct their energies and less effort is wasted on the part of each. Probably the blocking system is best worked out by putting two grades and two teachers into the same room, one grade studying under the teacher's eye while the other grade recites.

One example will illustrate the value of individual assistance:

A certain pupil was very weak in arithmetic work, but he seemed to come to a complete stop in learning how to multiply. He did well in other work and was especially proficient in reading. His teacher nagged him until he lost hope and stopped making very serious efforts in arithmetic. The case came to the attention of a business man, once a teacher. One evening he persuaded the lad to work some examples in multiplication with him. The work done was entirely oral. The gentleman multiplied by a figure and then asked the boy to multiply by the next one. The boy said, "I can't multiply that way." He was told to use his own method. It was then discovered that the boy was using a most intricate system of combined addition, subtraction, and multiplication. So intricate was it that he was very uncertain in multiplying by two figures and completely "swamped" by three. He was then asked to repeat word-for-word the operation as performed by the man assisting him, and after a few easy examples he was able to follow the method unaided, and in two or three days had no trouble whatever. He afterwards became especially strong in mathematics; but he had a narrow escape from the intellectual junk-pile. Investigation showed that the boy's teacher had no time for individual work.

The blocking system has been worked out quite carefully by Supt. I. B. Gilbert of St. Johns. He believes, that with such modifications as varying conditions suggest, it is a most valuable aid in the mental amalgamation of pupils of the intermediate grades.

UNGRADED SCHOOL.

Still another departure has been forced upon the graded school, namely the ungraded school. There is in every city a large class of young people, who for various reasons, do not "fit" any of the established grades. Many of them have dropped behind their classes, and remain in school only at the entreaties of parents and friends. They are a burden to the teacher, a clog upon the class-work; and a mark for the unfeeling pupil—sometimes for the brutal teacher. No condition in school-life is more intolerable.

The ungraded school, as its name implies, puts a pupil into such classes as he best fits. He may be a third grade speller, a fifth grade mathematician, and a seventh grade historian. There being no hard-and-fast lines, he is not humiliated by his grading. He is not one of *the* class, but one of *a* class. Thus he finds intellectual companionship, and he feels comfortable. We quote from a letter written by W. H. Elson, superintendent of the Grand Rapids schools, in reply to some questions concerning this work:

"The ungraded school is of distinct service in a system of schools. We have one such school in operation and expect to open at least three additional rooms of this kind in September, as 'centers,' to which pupils in these particular districts may be assigned. This school aims to render service to each individual pupil at the point of greatest need. Manual training constitutes a feature of the work of the school.

The assignment to the ungraded school is based upon various criteria. Children who are irregular in their work, due to physical or mental disability or to home invironment, constitute a large share of the member-

ship. Children of good natural ability sometimes learn from books with great difficulty. They are slow and require time; they need the individual help and guidance and the inspiration of a live, sympathetic teacher. Sometimes a boy or girl shows want of ability to co-ordinate with others in a large democratic society. Such pupils find the ungraded school helpful. Pupils that have, for various reasons, lost time, are behind in grade and who wish to recover this loss are given in the ungraded school an opportunity to narrow and intensify their instruction and thus accomplish special ends and secure special help. Often a pupil finds his school-life limited to a semester or, at most, to a year; he wishes to advance himself in a few lines of work. The ungraded school is the place for him. Another pupil wishes to make up a grade and hasten on to the high school. Under conservative direction this is a desirable end to attain. Several pupils enter the high school each year from the ungraded school. It thus furnishes, under proper conditions a distinct stimulus to those most in need of it. Abnormal children or those who are pathological and are not sufficiently so to warrant us in sending them to special schools for the care of this type of children, find in the ungraded school individual attention and help, which is necessary to their development and progress.

We seek to limit the attendance to twenty or twenty-five pupils, and place the school in charge of the teacher of largest insight and sympathy, and one whose academic attainments have by experience passed over into wisdom and judgment."

The result of the plan seems to argue for its general adoption. A visit to the Grand Rapids ungraded school revealed some things worthy of special comment:

1. The work is in charge of a lady who possesses, among other teachers' qualifications, a large sympathy. "These are not bad boys; they have been injured, and, besides, misunderstood," were her words.

2. The various classes which this school reaches is quite remarkable. Persons preparing for civil service examinations; applicants for positions as firemen or engineers on railroads—such must now present certificates showing that they have completed the seventh grade in the public schools—theological students reviewing the common branches before taking entrance examinations; foreigners, wishing to perfect their English; young people from the shops; and even mothers desiring to make partial amends for poverty of early school advantages, have all found a welcome and educational stimulus in the ungraded school. Since its establishment ten years ago, more than 1,400 persons have enjoyed its privileges, and between forty and fifty have gone from it into the high school.

THE DEPARTMENTAL PLAN

is another method for strengthening the work in the graded school. Its advocates seem very certain of its utility, and still it has been but sparingly tried throughout the State. It would seem that in high school work, there can be little doubt of its value, and where used in the grammar grades, there is uniform satisfaction with the results.

There is, however, one problem that we believe the departmental plan ought to solve; i. e., it ought to provide a hospitable place for those

pupils who at certain stages of growth show much disparity in the effort with which they master the various branches. One pupil forges ahead in mathematics, another in language, another in science, each being unable to satisfactorily accomplish the work in some other branch or branches of his grade. Often the greatest burden of the conscientious teacher is to "harmonize" these differences. But why should they be harmonized? When the child shows the stamp of mathematical excellence, or some other excellence, why should the teacher feel it necessary to harmonize differences? I have reference to *marked* excellence or *marked* failures. Is it not a grievous injustice to the pupil to force him to give the most of his effort to that subject which is certain to be a distasteful one? Is it wise to fit the pupil to the grade with the possible result that he will not "fit," and the possibility that he will in consequence find all study irksome and school a prison? Who knows what a normal child is? History points to strong men who were called dull children. How can pupils be measured? How can the school, instead of flying into the face of nature, reinforce her method of development? Such are the questions that force themselves upon the thoughtful superintendent and teacher.

Are these not questions which the departmental system can answer? Why should not a pupil above the fourth or fifth grade who is mentally eccentric be allowed to gravitate in the various subjects regardless of the grade. He would thus develop harmoniously; i. e., his *individual harmony* would be preserved. His intellectual balance would be undisturbed. He would not be pushed to strenuous effort in any one field, but would be asked to give the same mental effort to each phase of study. This might not produce a perfectly uniform class of students during certain periods of school-life, but such pupils "come together" later. The explanation is that the various faculties of the mind do not develop in the same relative order in all children, but in time—usually after the period of adolescence—we find all the faculties active. We have known fine historians whose first work in history was a feeble effort, because the higher faculties of the mind were slow in developing. The same kind of experience doubtless has come to mathematicians and scientists. Many pupils, discouraged because of continual nagging, have given up school in despair, when in a few months, nature would have made the contribution necessary to success. By this application of the departmental plan, much more would be done for some pupils and no less for any, and many of the benefits found in the ungraded school could thus be realized without inconvenience often experienced in attending such a school, or the breaking up of those school ties so precious to child life.

Supt. C. L. Bemis, of the Ionia schools, has worked out the departmental plan with great care. He has incorporated into it a most excellent feature—the inspection work of the heads of the various departments. By this plan such teachers get a view of the work of other teachers and the field to be covered by each grade, and the tendency for each to specialize is restrained. Each such teacher is required to report to the board of education upon certain features of the work, thus supplementing the work of the superintendent.

In order that this Department might more intelligently answer inquiries concerning the blocking system, departmental, and ungraded work, letters of inquiry were sent out to the city superintendents of the State. From the replies we have compiled the following:

General Summary.

1. Thirty-four cities use the departmental plan in some of their work.
2. Fifteen use it in the high school, and twenty in the grades.

How Distributed.

3. One uses it from the third to the eighth; three from the fifth to the eighth; four from the sixth to the eighth; nine in the seventh and eighth; and two in the eighth.

4. Fifteen use it in the grades only; nine in the high school only; six, both in the grades and high school. Four do not specify in what grades used.

Opinions of Superintendents on Departmental Plan.

1. Sixteen think that special teachers do more thorough work.
2. Three think pupils are less dependent.
3. Eleven think pupils do the work more easily.
4. Five think teachers usually specialize too much, demanding too much of pupils.
5. Ten think it weakens discipline.
6. Two think the personality of teacher is lost.
7. Two think there is no chance for individual work.
8. One thinks the lack of correlation of work a weakness.
9. Ten see *no* weakness in the plan.

Promotions.

1. Of the fifty-three cities reporting, thirty promote annually; twenty-three, twice each year.

2. Ten make the recitation the basis of promotion; thirty make both recitation and examination the basis—generally in ratio of recitation two, examination one.

3. Six have two examinations per year; seven have four; six have monthly examinations; five no uniformity. The other superintendents did not report.

Ungraded School.

Eight report ungraded schools or rooms.

Blocking System.

Twenty-four report the use of the blocking system to a greater or less extent; six think it gives pupils self-reliance; five think the teacher's tendency is to render too much assistance.

THE EDUCATION OF THE DEAF AND DUMB.

By the passage of Act No. 176, laws of 1899, the State Superintendent has been brought into more intimate relationship with the education of the deaf and dumb. By the provisions of that law he is obliged to consider every proposition made to establish local day schools for the deaf in our larger cities. Such schools are at present located in Detroit, Grand Rapids, Saginaw, Bay City, Muskegon, and Menominee. The law also provides that they may be established in any district having an average attendance of not less than three deaf pupils, for the instruction of such persons over the age of three years, whose parents, or guardians in the case of orphans, are residents of the State of Michigan.

Visits to these schools have been made which have demonstrated with added emphasis the important work which our commonwealth is doing for its unfortunate classes. It will always be true that the largest part of this work will be done at the School for the Deaf, located at Flint. This school is under the management of Francis D. Clarke, who has made the teaching of the deaf a life study, and the institution shows, in all its management, the touch of a master hand. Order and neatness is to be observed everywhere, in schoolroom, dining room, kitchen, hospital, workshops, and grounds.

Three ideas are made prominent in the school:

1. A faithful effort is made with every child who enters the school to give him the ability to speak and read the lips of others and to express his own thoughts by word of mouth.

2. Every child is given as much of an academic education as the time he spends at the school and his mental ability will produce.

3. Every child after reaching the sixth grade is taught a trade or occupation which will fit him to be self supporting in the years to come.

It is not proposed to give in any detail a discussion of the methods in use at this school; but simply to say that the results show a marvelous advance over the work done in similar schools only a short time ago. It is not too much to say that the deaf hear and the dumb are made to speak. It is doubtless true that many children who are congenitally deaf and dumb will never learn to articulate to a degree that will enable them to communicate freely with others by this method. Many will learn to read the thought expressed by the lips of others, but will not be able to successfully use their organs of speech. Others will conquer all the difficulties of articulate speech and will thus be enabled to more readily communicate with their fellow men and win their way in spite of the grave difficulties they encounter. An examination of the school reveals the fact that after the child has overcome the first difficulties of acquiring language he makes progress in his various studies nearly as rapidly as the hearing and speaking child.

It is the settled policy of the State school that every pupil shall be taught some trade which may be the means of self support in the future and with this idea the State Superintendent is in full accord. It would

not be a kindness to an unfortunate child to surround him with the cheer and happiness which such a school is capable of giving and afterwards to send him to his home, there to be met in many cases with conditions not pleasant to say the least; and worst of all to be dependent upon friends for his future support. If such boys can graduate as skilled tailors, printers, carpenters, shoemakers, harness makers, artists, and decorators; if the girls are taught domestic service, dressmaking, millinery, art work, embroidery, etc., they will be furnished something which lifts them from a life of dependence upon others to a basis of self support, and the State has given something which will make for better living to this class of its citizens. It would, therefore, seem to be wise not to confine the education of the deaf mute to the teaching of articulate speech combined with whatever of academic instruction may be possible during the years when this work is going on. The serious question, which should be studied by parent and educator alike, is as to the life which these unfortunate children will have to live during the years following their school days. It is more important that this class of boys and girls should be taught to be self supporting than the one who can both hear and speak. Evidently the work which is to be done for them during the earlier grades can be carried on to great advantage in the home school, but eventually it would seem to be the greatest wisdom that all of this class of pupils should share in the benefits of manual and trade training such as the school at Flint affords.

DAY SCHOOLS FOR THE DEAF.

Rules and Regulations.

As the authority to permit the establishment of day schools for the deaf was given to the Superintendent of Public Instruction by Act No. 176 of the public acts of 1899, the following rules and regulations for their general conduct were prepared by the Department under which those already established are organized, and which are to be accepted by boards of education before permission is granted for the establishment of a school under the provisions of the law:

I. *Support of school.*—Boards of education must advance the funds for the running expenses of the school during the year. By section 1205 of the compiled laws—which see—a system of accounting to the Auditor General of the State is established, which involves more labor than any board of education will be willing to undertake, and to obviate the necessity of all this labor should the funds be advanced by the State each month, I make the rule as above and explain the matter of settlement in paragraph No. X.

II. *Reports to the Department.*—Immediately after the close of the school year, and previous to June 30, a complete report on blanks furnished by this office must be made by the board of education, showing:

(*a.*) Name, experience and special qualifications of each teacher employed, with salary paid.

(*b.*) Name, age, sex, parent or guardian's name, place of residence—street and number—of each pupil in attendance, together with a complete record of attendance at school, days present and days absent. Holidays should be counted as days taught.

(c.) The aggregate attendance of all pupils enrolled.

III. *Number of pupils necessary to the establishment of a school.*—The law provides that there shall be an average attendance of at least three pupils. It is my opinion that a school with three pupils only would not be entirely successful, and I therefore recommend that boards of education do not ask for the establishment of a school unless there are five or more pupils in the school district eligible to attend, and whose parents or guardians agree to send such children to the school.

IV. *Non-resident pupils.*—Although the law states that the parents, or guardians in the case of orphans, must be residents of the State of Michigan, which would seem to indicate that non-resident pupils might be admitted under the general law governing non-resident pupils, it should be remembered that the State has an institution for the deaf, and it is not anticipated that day schools for the deaf will compete to the extent of receiving pupils who are not residents of the school district.

V. *Length of school year.*—This is fixed by law at nine months. The Department rules that one hundred eighty days of attendance (holidays included) shall be the basis on which the vouchers for the maximum of $150 per pupil will be allowed.

VI. *Qualifications of teachers.*—Teachers employed must have had special training in the teaching of the deaf by the so called "Oral Method," and one year's experience as a teacher in a school for the deaf. This is necessary in order to comply with the law. Information as to an applicant's qualifications should be furnished this Department previous to the making of a contract between the board of education and the teacher.

VII. *Salaries paid to teachers.*—Boards of education should be as careful in the expenditure of State funds as they are with the funds of their school district, and it is suggested that all teachers in schools for the deaf be employed at a definite salary and that such salaries be not greater than twenty-five per cent more than the average salary paid to the other teachers of their schools. Salaries ranging from six hundred dollars to nine hundred dollars should be considered liberal. One hundred dollars per month should be the limit, under present condition. Teachers employed in day schools for the deaf must not teach in any of the regular lines of school work.

VIII. *School appliances.*—The board of education should furnish building or rooms, heating facilities, desks, tables, chairs, and such other appliances as are furnished to the regular public schools. The only appliances which may be paid for out of the State funds are such as are used in schools for the deaf and not used in the public schools.

IX. *Vouchers.*—The vouchers for use in the disbursement of funds from the State are prepared by the Auditor General and will be furnished to the secretary of the school board. These vouchers should be made up in triplicate each month for the salaries of the month and for any appliances purchased during the month. All vouchers for salaries should state the time covered by the payment and the rate of salary per school year. Those paying for appliances should state the article, price per unit, number of units and total for each purchase. These vouchers should be receipted as provided and the date of payment by the treasurer of the school board should be inserted in the receipt. The board of education will preserve one voucher and forward the other two immediately to this

office. One will be preserved by the Department and the other filed in the office of the Auditor General.

X. *Time and manner of payment by the State.*—The aggregate number of days' attendance, in the school year, should be divided by 180 to determine the number of years' attendance, and this quotient multiplied by 150 to find the maximum amount to be audited by the Auditor General. Immediately upon receiving the annual report of the board of education mentioned in paragraph II, the Superintendent of Public Instruction will advise the Auditor General as to the maximum amount to be allowed to any board of education maintaining a school for the deaf under the provisions of the law. The Auditor General will then examine the vouchers filed in his office and draw his warrant on the State Treasurer for the full amount of the vouchers allowed by him, such amount not to exceed one hundred fifty dollars for each 180 days of actual attendance, and the amount of said warrant will be at once forwarded to the treasurer of the board of education.

Before granting permission for the establishment of a day school for the deaf, I most respectfully request your board to take formal action, agreeing to comply with the above requirements and give me due notice of such action.

SCHOOL LEGISLATION.

There has been much discussion from time to time in regard to the changes needed in the school laws. In my opinion, our laws do not need additions so much as revision. The laws have been amended many times, and at present many sections are not clear. Some contain ambiguous expressions and even errors, so that the force of such law is lost.

The whole subject of our school law should be carefully revised and made to say what it means. Controversies frequently arise over the qualifications of voters, the expenditures of funds, the power of the school board, purchasing by the board, hiring of teachers, actions of the school inspectors and many other topics. And in nearly every case these arise from the different constructions that are put upon certain sections owing to their ambiguity.

It is altogether likely that the people of the State would not be a unit in regard to what changes should be made in our school law, because great diversity of conditions exists. The demands of the Upper Peninsula are in many instances different from those in the Lower Peninsula and vice versa. I will not attempt to enumerate all the changes that might be beneficial. Some sections might be stricken out entirely, others need additions, but I suggest the following points which, in my opinion, if added to our laws would improve the results secured.

(a) Permission to use a portion of the one mill tax and fund raised by direct tax for the transportation of pupils where necessary.

(b) Authority for a district to use, without forfeiture, funds from sources above mentioned to pay tuition in other districts, of pupils living in a district where the school census is very small.

(c) That a majority vote of the taxpayers in any district shall be sufficient for any question involving the raising of money by tax, either of voting a tax direct or by bonding.

(d) That all appeals from the action of any board of school inspectors shall be taken to a board composed of the judge of probate, circuit court commissioners, and county commissioner of schools of the county in which the action arises. And that this board shall also act in place of a township board in the matter of removing any district officer from office for failure to perform his duty.

(e) That the school board in township unit districts shall establish schools in any part of the township on the petition of five or more taxpayers of the township; or provide for the transportation of pupils to schools already established.

(f) That the county commissioner of schools shall have authority to inspect private and parochial schools to determine whether children there in attendance are complying with the compulsory attendance law, and to gain such statistical information as the Superintendent of Public Instruction may require.

(g) To provide for restricting expenses in day schools for the deaf.

(h) That the Judge of Probate, County Commissioner of Schools, and the Health Officer of the township in which the question may arise shall have authority to examine and condemn school buildings for unhealthy and unsanitary conditions.

(i) I would advise legislation for the relief of the people in the sparsely settled portions of the State. In the northern part of the southern peninsula there are many townships where the valuation of the property is so low and such a small part of the taxes assessed can be collected that it is nearly impossible to maintain schools.

The taxes drive the settler out of the country. As there are whole townships with a valuation of less than one hundred thousand dollars, it is easy to see that it is practically impossible to maintain schools for the children who reside on this territory.

(j) We have laws providing for normal schools wherein shall be trained the teachers for our public schools, but experience has shown that these normal schools do not as yet reach the needs of the rural schools. The greatest need of the rural school today is better trained teachers. I would urge a general law providing for a training school in each county for the rural school teachers of that county.

These changes in existing laws and additions would, in my judgment, very greatly advance the cause of education in our State. The State has not done its duty until it has made provision for education for every boy and every girl within its boundary. We need to-day freer education and larger and wider opportunities. These changes are suggested because experience has shown that the law is deficient in these particulars, and great inconvenience, and in consequence, sometimes wrong, must be borne by the people. Several of the suggestions are treated in another place in this report and need not be further discussed here.

But two classes of people need especially to be considered in our school law—the taxpayer and the children—and the latter require the greater consideration and their highest interest must be considered first.

not be a kindness to an unfortunate child to surround him with the cheer and happiness which such a school is capable of giving and afterwards to send him to his home, there to be met in many cases with conditions not pleasant to say the least; and worst of all to be dependent upon friends for his future support. If such boys can graduate as skilled tailors, printers, carpenters, shoemakers, harness makers, artists, and decorators; if the girls are taught domestic service, dressmaking, millinery, art work, embroidery, etc., they will be furnished something which lifts them from a life of dependence upon others to a basis of self support, and the State has given something which will make for better living to this class of its citizens. It would, therefore, seem to be wise not to confine the education of the deaf mute to the teaching of articulate speech combined with whatever of academic instruction may be possible during the years when this work is going on. The serious question, which should be studied by parent and educator alike, is as to the life which these unfortunate children will have to live during the years following their school days. It is more important that this class of boys and girls should be taught to be self supporting than the one who can both hear and speak. Evidently the work which is to be done for them during the earlier grades can be carried on to great advantage in the home school, but eventually it would seem to be the greatest wisdom that all of this class of pupils should share in the benefits of manual and trade training such as the school at Flint affords.

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There has been much discussion from time to time in regard to the changes needed in the school laws. In my opinion, our laws do not need additions so much as revision. The laws have been amended many times, and at present many sections are not clear. Some contain ambiguous expressions and even errors, so that the force of such law is lost.

The whole subject of our school law should be carefully revised and made to say what it means. Controversies frequently arise over the qualifications of voters, the expenditures of funds, the power of the school board, purchasing by the board, hiring of teachers, actions of the school inspectors and many other topics. And in nearly every case these arise from the different constructions that are put upon certain sections owing to their ambiguity.

It is altogether likely that the people of the State would not be a unit in regard to what changes should be made in our school law, because great diversity of conditions exists. The demands of the Upper Peninsula are in many instances different from those in the Lower Peninsula and vice versa. I will not attempt to enumerate all the changes that might be beneficial. Some sections might be stricken out entirely, others need additions, but I suggest the following points which, in my opinion, if added to our laws would improve the results secured.

(a) Permission to use a portion of the one mill tax and fund raised by direct tax for the transportation of pupils where necessary.

(b) Authority for a district to use, without forfeiture, funds from sources above mentioned to pay tuition in other districts, of pupils living in a district where the school census is very small.

(c) That a majority vote of the taxpayers in any district shall be sufficient for any question involving the raising of money by tax, either of voting a tax direct or by bonding.

(d) That all appeals from the action of any board of school inspectors shall be taken to a board composed of the judge of probate, circuit court commissioners, and county commissioner of schools of the county in which the action arises. And that this board shall also act in place of a township board in the matter of removing any district officer from office for failure to perform his duty.

(e) That the school board in township unit districts shall establish schools in any part of the township on the petition of five or more taxpayers of the township; or provide for the transportation of pupils to schools already established.

(f) That the county commissioner of schools shall have authority to inspect private and parochial schools to determine whether children there in attendance are complying with the compulsory attendance law, and to gain such statistical information as the Superintendent of Public Instruction may require.

(g) To provide for restricting expenses in day schools for the deaf.

(h) That the Judge of Probate, County Commissioner of Schools, and the Health Officer of the township in which the question may arise shall have authority to examine and condemn school buildings for unhealthy and unsanitary conditions.

(i) I would advise legislation for the relief of the people in the sparsely settled portions of the State. In the northern part of the southern peninsula there are many townships where the valuation of the property is so low and such a small part of the taxes assessed can be collected that it is nearly impossible to maintain schools.

The taxes drive the settler out of the country. As there are whole townships with a valuation of less than one hundred thousand dollars, it is easy to see that it is practically impossible to maintain schools for the children who reside on this territory.

(j) We have laws providing for normal schools wherein shall be trained the teachers for our public schools, but experience has shown that these normal schools do not as yet reach the needs of the rural schools. The greatest need of the rural school today is better trained teachers. I would urge a general law providing for a training school in each county for the rural school teachers of that county.

These changes in existing laws and additions would, in my judgment, very greatly advance the cause of education in our State. The State has not done its duty until it has made provision for education for every boy and every girl within its boundary. We need to-day freer education and larger and wider opportunities. These changes are suggested because experience has shown that the law is deficient in these particulars, and great inconvenience, and in consequence, sometimes wrong, must be borne by the people. Several of the suggestions are treated in another place in this report and need not be further discussed here.

But two classes of people need especially to be considered in our school law—the taxpayer and the children—and the latter require the greater consideration and their highest interest must be considered first.

JASON E. HAMMOND.

Jason E. Hammond, the subject of this sketch, was born May 17, 1862, in Ransom, Hillsdale county, Michigan.

He was left motherless at the age of fourteen years and since that time has made his own way in the world. During the four years succeeding his mother's death he worked on farms in the summer and attended district schools in winter. In 1880 he entered Hillsdale College which he attended four terms. Afterward, by teaching district school in the winters he was enabled to secure sufficient means to enter the Agricultural College, from which institution he was graduated in 1886, receiving the degree of B. S. at that time, and the degree of M. S. in 1899. After graduation he served as principal of schools at Allen and at North Adams. During this period he spent one summer vacation taking advanced work at the State Normal School, and three summers reading law.

He became a member of the board of school examiners for Hillsdale county in 1888 and was chosen county commissioner of schools in June, 1891, which position he held until 1893, when he was selected for the position of Deputy Superintendent of Public Instruction by Henry R. Pattengill. Mr. Hammond's early environments, were such as to bring him in close touch with rural conditions, and his experience in the schoolroom gave him excellent training for the positions he was called upon to fill. As county commissioner he aroused and stimulated great interest in the schools on the part of patrons, pupils, and teachers. His practical knowledge of schools made him a safe and able adviser in the Department.

In 1896 he was elected to the high position of Superintendent of Public Instruction, which position he held four years. The ability to organize and execute were always marked characteristics in Mr. Hammond and these distinguishing traits eminently fitted him for the responsibilities of this office.

During his administration, and under his direction, important changes were made in the school laws. He published and sent out for use of patrons and teachers the revised Course of Study, a Manual of Special Day Exercises, the first Institute Outline ever published, and, after investigating the use and expense of text-books, published a pamphlet on Text-book Facts and Figures which, in many states, has influenced legislation on this subject.

He gave much time and thought to the improvement of our State Normal Schools and largely through his efforts many important changes were made in their management. Both the Central Normal and Northern Normal were established during his term of office.

Mr. Hammond was a young man but thirty-four years of age when elected to this high office. His administration was characterized by business-like thoroughness and ability, and it is due him to say that the State has rarely had a more conscientious, fearless, energetic, and loyal member of the executive family. Since retiring from office, Mr. Hammond has held the position of private secretary to Auditor General Perry F. Powers with whom he was associated on the State Board of Education.

Mr. Hammond by his honesty of purpose, loyalty, and never failing courtesy has won the esteem of a wide circle of friends who appreciate what he has accomplished and who wish him prosperity and happiness.

HON. JASON E. HAMMOND,
State Superintendent of Public Instruction, 1897-1901.

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parent to send him, and, as long as the broad rule adopted by the board exists, the child must be vaccinated or it and its parents must be law breakers. If the rule was, that during the prevalence of the smallpox in Kalamazoo the child could not attend school unless vaccinated a very different result would be reached. These epidemics never last very long, and the parent and child might say, if they desired, they would absent themselves from school during the epidemic, and this could be done without their being law breakers. In the case cited by Justice Long, Duffield vs. School District, 162 Pa. St. 476, the record shows that smallpox then existed in the school district. The school board had, because of this fact and at the request of the board of health, adopted the rule requiring vaccination. A very different case than the case at bar.

In Abel vs. Clark, 84 Calif. 226, the legislature itself passed a law requiring vaccination, and it was held to be within the police power, but it is not believed a case can be found where a board of education under the general power conferred upon it, is held to have the power to pass a general rule shutting the schools against all children not vaccinated.

The question has never before been raised in this State but the principles involved are not new.

In Potts vs. Breen, 167 Illinois, 67, the state board of health adopted a rule that no pupil should attend a public school unless vaccinated, and by their directions the school board excluded unvaccinated children from the school. The power given to the board of health was much greater than that conferred upon the Kalamazoo board of education. In holding that the board of health and the school board had exceeded their authority the court said:

"While school directors and boards of education are invested with power to establish, provide for, govern and regulate public schools, they are in respects nowise subject to the direction or control of the state board of health, and, as before pointed out, they have no authority to exclude children from the public schools on the ground that they refuse to be vaccinated, unless indeed, in cases of emergency, in the exercise of the police power, it is necessary or reasonably appears to be necessary to prevent the contagion of smallpox. Undoubtedly, also, children infected with or exposed to smallpox may be temporarily excluded or the school be temporarily suspended, but, like the exercise of similar power in other cases, such power is justified by the emergency, and, like the necessity which gives rise to it, ceases when the necessity ceases. No one would contend that a child could be permanently excluded from a public school because it had been exposed to smallpox, or that the school could be permanently closed because of the remote fear that the disease of smallpox might appear in the neighborhood, and that if the school should then be open and children in attendance upon it, the public would be exposed to the contagion. And upon the same line of reasoning, without a law making vaccination compulsory or prescribing it, upon grounds deemed sufficient by the legislature as necessary to the public health, as a condition of admission to or attendance upon the public schools, neither the state board nor any local board has any power to make or enforce a rule or order having the force of a general law in the respects mentioned."

"However fully satisfied by learning and experience a board might be that antitoxine would prevent the spread of diphtheria, no one would contend that a rule enforcing its use as a condition precedent to the admission of a child to the public schools would, as the law now is, be valid. It is a matter of common knowledge that the number of those who seriously object to vaccination is by no means small, and they cannot, except when necessary for the public health, and in conformity to law, be deprived of their right to protect themselves and those under their control from an invasion of their liberties by a practically compulsory inoculation of their bodies with a virus of any description, however meritorious it might be."

In Adams vs. Burdge (Wis.) 37 L. R. A. 157, the board of health under its general powers adopted a rule excluding from the public schools pupils who had not been vaccinated. The school board undertook to carry out the rule. The court said:

"The police power of the state is relied upon to support the rule in question. This power has been defined in varying language, but of substantially the same general import. 'All laws for the protection of life, limb and health, for the quiet of the person, and for the security of property,' fall within the general police power of the government. 'All persons and property are subjected to all necessary restraints and burdens, to secure the general comfort, health and prosperity of the state;' and it has been said that 'it is co-extensive with self-protection, and is not inaptly termed "the law of

SUPREME COURT DECISIONS

ON MATTERS OF

EDUCATIONAL INTEREST

DECISIONS OF THE SUPREME COURT.

BAILEY vs. TOMPKINS ET AL.

(Opinion filed June 4, 1901.)

SCHOOL DISTRICT—ORDER—VALIDITY—LIABILITY OF OFFICERS AS GUARANTORS.

Where an order purports upon its face to be issued by a school district and is signed by the school officers, in the ordinary place for signatures, and at the left, in fine print, are the words "Issued by authority of officers of said district, and payment guaranteed," and a space is left underneath for the signatures of the guarantors.

Held: 1. That the purchaser took the order subject to the authority of the school district to issue.

2. That such school officers are not liable as guarantors.

Error to the circuit court for Newaygo county; John H. Palmer, Judge.

Action by John Bailey against Isaac Tompkins and Mason Norton. Defendants had verdict. Plaintiff brings error. Affirmed.

F. L. Gray, for plaintiff and appellant.

George Luton, for defendants and appellees.

This is an action of assumpsit, brought in justice court. The declaration was upon the common counts, and, as shown by the return of the justice, is as follows:

"The plaintiff declared orally on the common counts and avers that the school order filed in this cause was duly assigned by the Educational Association to the plaintiff, John Bailey, for a valuable consideration."

The order reads:

"State of Michigan. $37.50.

"County of Newaygo, Town of Norwich, Dist. 5, Oct. 21, 1897.

"Assessor of District 5, Township Norwich, Oct. 20, 1898, will pay to the Educational Association, or bearer, the sum of thirty-seven and 50-100 dollars out of any fund belonging to said district for Complete Encyclopedia of Modern School Method, illustrated, comprising reading, grammar, writing, arithmetic, business course, history, geographical maps and automatic case.

"Issued by authority of officers of said district, and payment guaranteed by

"ISAAC TOMPKINS,
"MASON NORTON,
"School officers."

Upon appeal the circuit court directed a verdict for the defendants. The order was obtained by two traveling agents of the Educational Association, who, after obtaining the order, immediately transferred it to the plaintiff. Defendant Tompkins was the director of the district and Norton the moderator.

It was conceded upon the trial that the order was void as to the school district, and that the defendants had no authority to buy the books or issue the order, but plaintiff

seeks to hold the defendants both as makers and as guarantors. Nothing was said to defendant Tompkins by the agents as to his personal liability. Defendant Norton raised some question as to his personal liability and was informed by the agents that he was not liable. Both defendants informed these agents that they had no authority to buy the books. The agents pretended to read from the law, showing them that they had authority, and finally persuaded them to sign the order. Neither signed with any idea that he was personally responsible, or was guaranteeing the payment of the order.

GRANT, J. 1. The order upon its face was the obligation of the school district, and not that of the defendants who signed as officers. Plaintiff's main argument seems to be that the defendants were "guilty of gross carelessness in signing the order, and thus putting it in the power of wrong-doers to commit a wrong or a fraud which must result in a loss to themselves or some innocent third person." This is not a case for the application of that rule. The order upon its face purports to be issued by the authority of the school district. It is like the bonds of a municipality which the purchaser takes subject to the authority of the municipality to issue. The officers who sign such orders or bonds are not liable in an action of assumpsit, for they have not personally promised to pay the debt. If they are guilty of any fraud in connection therewith, they can only be held liable in another form of action.

2. There is nothing upon the face of the order to indicate to plaintiff that payment was guaranteed by the defendants. The defendants signed the order in the usual place, at the right hand, opposite the words, "School officers." At the left are the words "Issued by authority of officers of said district, and payment guaranteed by ———" It was conceded that the officers had no authority to issue the order, and, as against the district, it is void. They evidently did not sign the order as guarantors, or upon any idea that they were individually liable. The guaranty was placed at the left of the order, leaving a place underneath for the signatures of those who might sign as guarantors. It is a fair inference that the order was printed with the fraudulent intent to mislead the signers of it in believing that they were acting only in an official capacity, and at the same time enabling the agents of the Educational Association in disposing of the order, to represent that the officers were individually liable.

We think that the court properly directed a verdict, and the judgment is affirmed. The other justices concurred.

MATHEWS vs. BOARD OF EDUCATION.

(Opinion filed July 10, 1901.)

SCHOOL BOARD—COMPULSORY VACCINATION RULE—VALIDITY.

A board of education, under the general power conferred upon it, has no power to pass a general rule shutting the schools against all children not vaccinated.

Long and Grant, J. J., dissenting.

Certiorari to review an order of the Kalamazoo circuit court granting the petition of George R. Mathews for mandamus to compel the Board of Education of School District No. 1, of the city and township of Kalamazoo, to enter an order admitting children of relator to school. Affirmed.

Walter R. Taylor, for relator and appellee.

Alfred J. Mills, for respondent and appellant.

MOORE, J. I cannot agree with the conclusion reached by Justice Long.

The children of the relator are of school age and in good health. They have not got the smallpox nor have they been exposed to it. The law of the State makes it their duty to attend school, and it is the duty of the parent to send them; C. L. Sec. 4847. In case he fails to do so he may be subject to fine or imprisonment or both in the discretion of the court; C. L. Sec. 4848.

The effect of the rule adopted by the school board is to compel vaccination of the child or subject him and the parents to the penalties of the law. The practical result, if this rule can be sustained, is to give the board of education the right to compel compulsory vaccination. It is said the board do not undertake to compel vaccination but it simply says until the child is vaccinated it cannot attend school. We have already shown it is made by law the duty of the child to attend school and of the

parent to send him, and, as long as the broad rule adopted by the board exists, the child must be vaccinated or it and its parents must be law breakers. If the rule was, that during the prevalence of the smallpox in Kalamazoo the child could not attend school unless vaccinated a very different result would be reached. These epidemics never last very long, and the parent and child might say, if they desired, they would absent themselves from school during the epidemic, and this could be done without their being law breakers. In the case cited by Justice Long, Duffield vs. School District, 162 Pa. St. 476, the record shows that smallpox then existed in the school district. The school board had, because of this fact and at the request of the board of health, adopted the rule requiring vaccination. A very different case than the case at bar.

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"While school directors and boards of education are invested with power to establish, provide for, govern and regulate public schools, they are in respects nowise subject to the direction or control of the state board of health, and, as before pointed out, they have no authority to exclude children from the public schools on the ground that they refuse to be vaccinated, unless indeed, in cases of emergency, in the exercise of the police power, it is necessary or reasonably appears to be necessary to prevent the contagion of smallpox. Undoubtedly, also, children infected with or exposed to smallpox may be temporarily excluded or the school be temporarily suspended, but, like the exercise of similar power in other cases, such power is justified by the emergency, and, like the necessity which gives rise to it, ceases when the necessity ceases. No one would contend that a child could be permanently excluded from a public school because it had been exposed to smallpox, or that the school could be permanently closed because of the remote fear that the disease of smallpox might appear in the neighborhood, and that if the school should then be open and children in attendance upon it, the public would be exposed to the contagion. And upon the same line of reasoning, without a law making vaccination compulsory or prescribing it, upon grounds deemed sufficient by the legislature as necessary to the public health, as a condition of admission to or attendance upon the public schools, neither the state board nor any local board has any power to make or enforce a rule or order having the force of a general law in the respects mentioned."

"However fully satisfied by learning and experience a board might be that antitoxine would prevent the spread of diphtheria, no one would contend that a rule enforcing its use as a condition precedent to the admission of a child to the public schools would, as the law now is, be valid. It is a matter of common knowledge that the number of those who seriously object to vaccination is by no means small, and they cannot, except when necessary for the public health, and in conformity to law, be deprived of their right to protect themselves and those under their control from an invasion of their liberties by a practically compulsory inoculation of their bodies with a virus of any description, however meritorious it might be."

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over-ruling necessity."' It is that inherent and plenary power in the state which enables it to prohibit all things hurtful to the comfort and welfare of society."

Tiedeman, Pol. Power, 2-5; Cooley, Const. Lim. 572. Redfield, Ch. J., in Thorp vs. Rutland & B. R. Co., 27 Vt. 140, 62 Am. Dec. 625; Lakeview vs. Rose Hill Cemetery Co., 70 Ill., 192, 22 Am. Rep. 71; State vs. Noyes, 47 Me., 189. As the police power imposes restrictions and burdens upon the natural and private rights of individuals, it necessarily depends upon the law for its support; and, although of comprehensive and far-reaching character, it is subject to constitutional restrictions, and, in general, it is the province of the law-making power to determine in what cases or upon what conditions this power may be exercised. As applied to the present case, the relator had a right, secured by statutory enactment, to have his children continue to attend the city schools in which they were respectively enrolled as pupils, and they, too, had a right to so attend such schools. Whether it be called a "right" or "privilege" cannot be important; for in either view it was secured to the relator and to his children as well, by the positive provision of law, and was to be enjoyed upon such terms and under such conditions and restrictions as the law-making power, within constitutional limits, might impose. There is no statute in this State authorizing compulsory vaccination nor any statute which requires vaccination as one of the conditions of the right or privilege of attending the public schools; and, in the absence of any such statute, we think it cannot be maintained that the rule relied upon is a valid exercise of the rightful powers of the State Board of Health. The State Board of Health is a creation of the statute, and has only such power as the statute confers. It has no common law powers.

To lawfully exclude the relator's children from the city schools for the cause relied on required such a change in the existing law as the legislature alone could make—a change that should make vaccination of pupils compulsory, or, at least, prescribe it as a condition of the right or privilege of attending the public schools generally, or during the occurrence of certain emergencies, or upon the happenings of certain contingencies or conditions in respect to the prevalence of smallpox. The powers of the State Board of Health though quite general in terms, must be held to be limited to the enforcement of some statute relating to some particular condition or emergency in respect to the public health; and, although they are to be fairly and liberally construed, yet the statute does not, either expressly or by fair implication, authorize the board to enact a rule or regulation which would have the force of a law changing the statute in relation to the admission and the right of pupils of a proper school age to attend the public schools."

It is not a question as to what the legislature might do under the police power about requiring vaccination as a prerequisite to attending school, nor is it a question of whether the legislature could confer this power upon the school board. The board of education is a creature of the statute. It possesses only such powers as the statute gives it. The legislature has said who may and should attend the public schools. It has nowhere undertaken to confer the power upon the school board to change these conditions by passing a general continuing rule excluding children from the public schools until they comply with conditions not imposed upon them by the legislative branch of the government. In what I have said I do not mean to intimate that, during the prevalence of diphtheria or smallpox or any other epidemic of contagious disease in a school district, the board may not under its general powers temporarily close the schools or temporarily say who shall be excluded from the schools until the epidemic has passed; but what I do say, is that the legislature has not undertaken to give them the power when no epidemic of contagious disease exists or is imminent in the district, to pass a general continuing rule which would have the effect of a general law excluding all pupils who will not submit to vaccination. I think the learned judge was right in saying the school board exceeded its power.

The order of the court below is affirmed. Montgomery, C. J., and Hooker, J., concurred with Moore, J.

HUTCHINS vs. SCHOOL DISTRICT.

(Opinion filed July 19, 1901.)

SCHOOL BOARD—TEACHER'S CONTRACT—ORAL AGREEMENT—VALIDITY.

The statute, section 4678, C. L., requires that all the terms of a teacher's contract shall be in writing and recovery cannot be had on an alleged oral agreement changing or extending the original written agreement even where such oral agreement has been performed by the teacher.

Error to the circuit court for Oceana county; Fred J. Russell, Judge.

Action by Daniel B. Hutchins against School District No. 1, Colfax township. Plaintiff had verdict. Defendant brings error. Reversed and new trial ordered.

Wallace Foote, for plaintiff and appellee.

L. M. Hartwick, for defendant and appellant. (Hartwick & Skeels, of counsel.)

MONTGOMERY, C. J. Plaintiff is a school teacher, and had a written contract with defendant district to teach the school in said district for a term of six months, commencing on or about December 11, 1898, at thirty-five dollars per month.

Plaintiff presented himself at the district to teach, on that date, but was informed that the building was not ready; that he could go home, and when it was ready, they would notify him. He was finally notified, and opened school February 5, 1899. He taught until the expiration of six school months from December 11, 1898, and testifies that, before the expiration of this time, he made a new arrangement, orally, with the board, to continue the school for another month, under the old contract. The plaintiff has received pay for the full six months covered by the original contract. He recovered a judgment for thirty-five dollars, the value of the service for the extra month, under the new arrangement, and the defendant brings error.

The defendant contends that the contract, not being in writing, is not enforcible. The plaintiff, on the other hand, contends, first, that this is not a new contract, but an enlargement of the original one, which was in writing.

We think this proposition is not tenable. The law contemplates that all the terms of the contract shall be in writing; and, if under a claim of enlarging or continuing a written contract, the board might make the principal part of it rest in parol, it would have the effect to render the statute of little value.

It is further contended that, the contract having been performed by the plaintiff, he is entitled to recover, notwithstanding the statute, which requires that all such contracts shall be in writing. There is nothing ambiguous about the terms of this statute, 2 Comp. Laws, 1897, Sec. 4678. The district board is a board of limited powers, and no good reason can be urged why, when the statute is express, and limits their power to contracts in writing, it should not be observed.

The case of Langston vs. School District, 121 Mich. 654, affirms that, unless the contract is in writing, it cannot be enforced. In that case, the previous cases of the court are considered and distinguished. In Crane vs. School District, 61 Mich. 299, it is stated in the opinion that a contract signed by a majority of the board is presumptively valid on its face. There was a written contract in that case, so signed. The present question was, therefore, not in the case, but the question was whether the execution of such a contract, not duly authorized, might be ratified by the board, without a formal meeting. It was affirmed that it might. So, in the case of Holloway vs. School District, 62 Mich. 153, there was a written contract, and the court there held that a contract, valid on its face, actually carried out in full and acquiesced in by all concerned, cannot be subsequently repudiated.

The effect of these cases is to hold that one contracting with the school district in writing and whose contract is signed by the officers contemplated by the statute, may rely upon the appearance of authority, and assume, at least after his services have been received without murmur or complaint, that authority had been duly granted to execute the contract.

The case of Jones vs. School District, 110 Mich. 363, cited by counsel for plaintiff, does not involve a construction of Sec. 4678 at all. That was a case in which all the officers of the district ratified a contract not required by the term of the statute to be in writing and the only question was whether the informal action of this board should be sustained.

We are here dealing with a case where the plaintiff, presumed to know the law, must be held to know that the contract, under which he is assuming to render service to the district, is one prohibited by the statute. He is not misled as to the authority of those with whom he assumes to contract, but stands upon equal ground with the school district, and, although it may be a case of hardship, we are constrained to hold that the contract is one not enforcible, and that a verdict should be directed for the defendant.

The judgment will be reversed with costs and new trial ordered. The other justices concurred.

HOWELL ET AL. VS. SHANNON ET AL.

(Opinion filed May 19, 1902.)

ORGANIZATION OF SCHOOL DISTRICT—CONSENT OF TAXPAYERS TO CONSOLIDATION OF SCHOOL DISTRICTS—ACTION OF INSPECTORS UNDER SEC. 4654, C. L.—DE FACTO DISTRICT.

Where the evidence shows that a board of school inspectors satisfied itself that a majority of the resident taxpayers consented to the consolidation of two school districts, and acting in good faith proceeded to consolidate them, and the new district proceeded to secure a new site upon which a school building was moved and a school maintained, a school district de facto is in existence and the action of the school inspectors will not set aside on mere technicalities.

Where the organization of a local corporation, as a town or school district, is left to the will of any particular body of electors or officers and they proceed to execute their powers and complete the organization, their executed will ought to stand if there has been a substantial compliance with the policy of the law giving them jurisdiction.

Appeal from the circuit court for Shiawassee county in chancery; Stearns F. Smith, judge.

Bill filed by Thomas J. Howell et al. against Aymer E. Shannon et al. From the decree entered, complainants appeal. Affirmed.

Watson & Chapman, for complainants and appellants.

A. L. Chandler and Smith & Hood for defendants and appellees.

MOORE, J. The original bill of complaint in this case was filed September 16, 1899. The amended bill of complaint was filed December 21, 1900. The case is commenced for the purpose of setting aside an order made by the board of school inspectors consolidating two school districts.

The circuit judge was of the opinion the complainants had mistaken their forum, that if they felt aggrieved at the action of the school inspectors, they should have appealed to the township board and dismissed the bill of complaint. The case is brought here by appeal.

The record discloses that July 15, 1899, there was filed with the clerk of the board of school inspectors a statement signed by the directors of school district No. 7, that at the annual meeting a majority of the resident taxpayers had voted to consolidate school district No. 7 with school district No. 5; that the vote was fifteen yeas, two nays. A like notice was received signed by the director of school district No. 5 in which it was stated: The question being that school district No. 5 consolidate with school district No. 7, and was carried in favor of consolidation, there being a majority of the resident taxpayers of said district voting in favor of consolidation, and the vote was found yeas 17, and nays 14.

The school inspectors caused notices to be posted that they would hold a meeting *August* 1st, to consider the matter of such consolidation. At that meeting, because of

representations made it was decided not to consolidate the districts, as the action of school district No. 5 was, by some, considered illegal. A special meeting of school district No. 5 was had, when the question of consolidation was again submitted, when it was declared the vote stood in favor of consolidation fourteen, opposed fifteen. The regularity of this meeting was questioned, and defendants claim the vote of the annual meeting to consolidate was not rescinded. The board of school inspectors appointed a meeting for August 30 to again consider the question of consolidation. Proper notices were posted by the township clerk of this meeting. The record discloses that a large number of resident taxpayers from both districts were present and were heard by the board. The board also examined the assessment roll for the purpose of determining whether a majority of the resident taxpayers of each district were in favor of consolidation and became satisfied they were. The board then made an order reciting that both of said school districts having voted in favor of consolidation, the two districts were consolidated, and the new district was called No. 5. An order was also made designating a place for holding the first meeting on the 7th of September, proper notices of which meeting were served. The meeting was held and the district officers were chosen. A school site was secured and one of the school buildings was moved upon the new site before the first bill of complaint was filed in the case. The parties in interest doubtless having some question as to the regularity of the proceedings up to the time of the filing the bill, another special meeting was held in school district No. 5, when it was claimed a majority of the resident taxpayers again voted in favor of consolidation, the vote being 26 yeas, 12 nays. The board of inspectors held another meeting and again declared the two districts consolidated. A school meeting of the consolidated district was again held, school district officers chosen, and a school has been maintained in the new district from that time until this, and the district has drawn its proportion of public moneys.

The case, though commenced in September, 1899, and a decree made by the circuit judge in December, 1900, has been allowed to drag along, and was not presented to this court until the April term, 1902. In the meantime the only school district in fact in the consolidated territory for two years and eight months, has been the new school district, No. 5.

It has been held that the right of a board of inspectors to set off a new school district does not depend upon a petition for said action; Gentle vs. School Inspectors, 73 Mich. 40, C. L., Sec. 4654, does not provide in what way it shall be shown to the board of school inspectors that a majority of the resident taxpayers had consented to the consolidation of the school districts. In Clement vs. Everest, 29 Mich. 19, considering the action of the board of school inspectors, Justice Campbell used the following language:

"Irregularities are common and unavoidable in the organization of such bodies; and both law and policy require that they shall not be disturbed except by some direct process authorized by law, and then only for very grave reasons.

"The policy of our law is to place the whole work of local administration in the hands of the people of the locality, and it cannot be expected that town officers will be always able to conform their actions to the strict rules of technical accuracy. In such matters as concern the public, and do not interfere with private property or liberty, such action as creates municipal bodies and gives them corporate existence cannot be questioned without creating serious disturbance. If the regularity of their organization can be kept open to question indefinitely, no one could ever be sure that any of the taxes or other matters concerning his own town were valid and the whole public business might be blocked by litigation. There are some matters affecting private rights which are scrutinized strictly, because no one can be deprived of private rights without conformity to law. Where one man's property is taken for public purposes without his consent, the taking must be justified by regular action. But where the organization of a local corporation, as a town or district, is left to the will of any particular body of electors or officers, and they proceed to execute their powers and complete the organization, their executed will ought to stand if there has been a substantial compliance with the policy of the law giving them jurisdiction. Every presumption is to be made in favor of the regularity of such action; and where there is a valid law, and an organization under it which proceeds from the lawful agencies, it should be regarded as entitled to legal standing, unless measures are speedily taken to assail such action by some competent authority. Where an appeal is granted it

must be lawfully prosecuted. Where there is no appeal, the courts will never enlarge their remedies to interfere, where they can avoid it, with existing corporate bodies provided for by law, on any formal ground. The same rule which recognizes the rights of officers de facto recognizes corporations de facto, and this is necessary for public and private security. There are probably few towns or school districts where there has not been some looseness in proceedings to organize them. Such carelessness seldom leads to serious mischief, and where it does there are usually sufficient remedies without needless intermeddling."

For the purposes of this case we do not deem it necessary to express any opinion as to whether the circuit judge was right in holding complainants have mistaken their remedy or not. The record discloses the board of school inspectors satisfied itself that a majority of the resident taxpayers consented to the consolidation of the two districts, and acting in good faith proceeded to consolidate them. The new district at once proceeded to secure a new site upon which a school building was moved, and where a school has been maintained. A school district de facto has been in existence all this time. We think no sufficient showing has been made to authorize us at this late date to overturn the action of the board of school inspectors.

Lord vs. Every, 38 Mich. 405.

Everett School Dist. vs. Wilcox School Dist., 63 Mich. 51.

The decree is affirmed with costs. Long, J., did not sit. The other justices concurred.

EXAMINATION QUESTIONS

FOR

STATE AND COUNTY CERTIFICATES

I. State Examination at Marquette, Mt. Pleasant, and Ypsilanti, August, 1901.

II. Regular County Examination, March, 1901.

III. Regular County Examination, June, 1901.

IV. Regular County Examination, August, 1901.

V. Regular County Examination, October, 1901.

STATE EXAMINATIONS.

I. QUESTIONS PREPARED BY STATE BOARD OF EDUCATION FOR EXAMINATIONS HELD AT MARQUETTE, MT. PLEASANT AND YPSILANTI, AUGUST, 1901.

ALGEBRA.

(Omit any two marked *.)

1. Distinguish between an equation and an identity. Illustrate each. What check can be used in each case. Illustrate.
2. State and prove the "Remainder Theorem" and show how it can be used to determine the factors of an expression. Hence show that $x^n + y^n$ is *never* divisible by $x - y$, and that $x^n - y^n$ is *always* divisible by $x - y$; also show when $x + y$ is a factor of $x^n + y^n$; of $x^n - y^n$.

*3. Define *symmetry* and *homogeneity* and show what use may be made of them in checking results in addition, multiplication, and division. Illustrate.

4. Factor the following, giving enough of the work to show the method:
   (a) $x^{12} - y^{12}$.
   (b) $x^4 + 7x^2 + 10$.
   (c) $x^4 - 11x^2 + 1$.
   (d) $3x^2 + x - 2$.
   (e) $x^3 + y^3 + x^2 - xy + y^2$.
   (f) $12x^2 - 11xy + 2y^2$.
   (g) $2a^2 - 2ab + ax - bx$.
   (h) $\frac{x^2}{a^2} + \frac{a^2}{x^2} - 2$

*5. State and prove the principle, or principles, upon which the Euclidean method (long division method) of finding the H. C. F. of two expressions depends. Show how, by this principle, you can tell by inspection that $\frac{x^3 + 2x + 5}{x^3 + 2x + 7}$ and $\frac{x^3 - 2x + 3}{x^3 + 4x + 3}$ are in their lowest terms.

6. Upon what fundamental law or laws of exponents does our interpretation of fractional, negative, and zero exponents depend? What is our interpretation of $a^{\frac{n}{m}}$, a^{-n} and a^0?

Simplify:

(a) $\left(\frac{16a^{-4}}{9b^2}\right)^{\frac{1}{2}}$

(b) $(2^{x+1})^2 \cdot 2^{2x-1}$.

(c) $\frac{2^{n+4} - 2^{n+1}}{2^n \cdot 4^2}$

(d) $\left(\frac{a^{m+n}}{a^n}\right)^m \div \left(\frac{a^n}{a^{m+n}}\right)^{n-m}$

7. Rationalize the denominators of, and simplify:

(a) $\dfrac{1}{2\sqrt{3}-\sqrt{2}}$.

(b) $\dfrac{4\sqrt{7}+3\sqrt{2}}{5\sqrt{2}+2\sqrt{7}}$.

(c) $\dfrac{1}{\sqrt{2}+\sqrt{3}+\sqrt{5}}$

(d) $\dfrac{3\sqrt{2}}{\sqrt{3}+\sqrt{6}} - \dfrac{4\sqrt{3}}{\sqrt{6}+\sqrt{2}} + \dfrac{\sqrt{6}}{\sqrt{2}+\sqrt{3}}$

8. Solve the equation $ax^2+bx+c=0$ and from the result find tests for determining the character of the roots. What must be the value of b in order that the roots in $2x^2 + bx + \frac{8}{5} = 0$ be equal?

*9. Solve by reducing to a quadratic form,
$3x - \sqrt{2x^2 + 6x + 1} = 1 - x^2$

10. Solve $x^3-15x^2+74x=120$, having given that one root is 4.

*11. Show the relation between the roots and coefficients of any quadratic equation. Using these results form an equation whose roots are 3 and —4; whose roots are 6 and —7.

*12. Form a quadratic equation one of whose roots is $1 + \sqrt{-5}$; one of whose roots is $5 + \sqrt{6}$.

ARITHMETIC.

1. Show that the division or multiplication of both terms of a fraction by the same number does not change its value. How is the value of a proper fraction affected by adding the same number to both of its terms? By subtracting the same number from both of its terms?
2. How many cubical blocks, each edge of which is ⅓ of a foot, are equivalent to a block of wood 8 feet long, 4 feet wide, and 2 feet thick?
3. A, owning ⅗ of a mill, sold ⅖ of his share to B and ½ of what he then owned to C for $460; what part of the mill did C buy? What was the value of the mill at the rate of C's purchase?
4. A speculator buys bonds whose par value is $10,000 at 113⅜ and sells than at 115⅛; how much does he gain if brokerage is ⅛% in each transaction?
5. A, B, and C together have $250; B has ⅔ as much as A, and C has ¼ as much as A and B together. How much has each?
6. How was the length of a meter originally determined? State (a) *three* countries in which the metric system is used commercially; (b) the advantages of the metric system.
7. A sphere of lead 6 inches in diameter is melted and cast into a cylinder 4 inches in diameter; find the height of the cylinder.
8. A, B, and C form a partnership. A invests his capital for 8 months and received ⅓ of the profits; B invests his capital for 12 months; C invests $4,000 for 6 months and received ⅙ of the profits. Find the capital invested by A and B.
9. From a 10 gallon cask containing 7 gallons of wine and 3 of water, 4 gallons are drawn and the cask refilled with water; what is the per cent of wine in the resulting mixture?
10. Simplify $\{ (\frac{9}{13} + 2\frac{1}{6} - 3\frac{3}{13}) \div (\frac{19}{8} - 1\frac{3}{8} + 5\frac{47}{72}) \} \times (.625 \times \frac{12}{25})$.

BOTANY.

1. What are the chief characteristics of the following plant groups: algæ, mosses, ferns, liverworts, gymnosperms, monocotyledons, dicotyledons?
2. How do any of the familiar plants show by their growth that they are sensitive to the stimuli of light, moisture, and gravitation?
3. Under what conditions will starch be formed in the leaf of a plant? How can these conditions be demonstrated by experiments?

4. Green plants under the influence of sunlight give off oxygen; germinating seeds give off carbon dioxide. What is the meaning of each process? How can they be reconciled?
5. Describe the methods by which plants prevent self fertilization and necessitate cross fertilization. Name a plant which illustrates each method.
6. What parts of the flowers are represented in a pea or bean pod? In a strawberry? In a mulberry?
7. Give three or more characteristics of the following families of flowering plants and name three representatives of each: Liliaceæ, Ranunculaceæ, Leguminosae.
8. What is the primary function of roots? How does the structure of roots subserve this function?
9. What do you understand by transpiration? Explain how transpiration is regulated.
10. Name all the parts of a common bean seed. How does it compare in its germination with the common pea?

CHEMISTRY.

(Answer any ten questions.)

1. Give the laboratory method of preparing oxygen and write the reaction.
2. (a) State four reasons why air is a chemical compound.
   (b) How is nitrogen prepared?
3. Define: acid, base, chemistry, filtrate, residue, solvent.
4. How are the following tested: Fe, Hg, K, Sr, Ag.
5. (a) Give the use of soap.
   (b) How does soap act on hard water?
6. Name the following: C_2H_4, C_6H_6, CS_2, $FeSO_4$, $HCLO_3$, HCLO, H_4SiO_4, N_2O, $HC_2H_3O_2$, C_2H_6O, NA_2SO_3.
7. Write the graphic symbols for the following: Fe_2O_3, $CuCL_2$, CH_4, H_2SO_3, C_2H_5OH.
8. What is the Marsh test for arsenic?
9. How much manganese dioxide would be required to liberate 100 grams of chlorine?
10. What is the difference between an oxidizer and a reducer, and give example of each.
11. How is HNO_3 prepared? Write the reaction.
12. Balance the following equations:
    $FeCL_2 + KMnO_4 + HCL =$
    $FeCL_2 + HCL + O_2 =$

CIVIL GOVERNMENT.

(Answer any ten questions.)

1. (a) Give some of the most prominent features of the Articles of Confederation.
   (b) In what respects were they not fitted to establish a strong national government?
2. Give, in brief, a history of the adoption of our present United States constitution.
3. (a) Describe the electoral college.
   (b) How has it departed in practice from the intention of the framers of the constitution?
4. Give arguments in favor of, and against, the election of United States senators by direct vote of the people.
5. (a) Give the substance of each of the last three amendments to the constitution.
   (b) Under what circumstances were they adopted?
6. (a) How are members of the national house of representatives elected?
   (b) How many are there at present?
   (c) How many will there be in 1903?
   (d) What is "gerrymandering?"
7. Describe the United State supreme court, giving its organization, jurisdiction, etc.
8. (a) Why is the speaker of the house of representatives a man of so great influence in national legislation?
   (b) Who is the present speaker?

9. Give the term of office, salary, time of election, powers, and duties of the governor of Michigan.
10. Tell how soldiers were enlisted, organized, equipped, and paid in the Spanish-American war.
11. Trace, step by step, the arrest, trial, conviction, and punishment of a horse thief in Michigan.
12. How are the Philippines governed at present?

GENERAL HISTORY.

(Answer any ten questions.)

1. In what way did the ancient Egyptians, the Phœnicians, and the Hebrews each affect the development of civilization?
2. Describe the physical features of Greece and speak of the effect of physical environment upon the the character, political organizations, civilization, and history of the Hellenes.
3. What were the results of Alexander's conquests?
4. Give a brief account of the reign of Augustus Cæsar.
5. Describe slavery as it existed under the Roman Empire, and its effects.
6. (a) Give a brief account of the conquest of Britain by the Angles and Saxons.
   (b) Describe the Angles and Saxons at the time of their settlement in Britain.
7. In what ways have Mohammedan peoples influenced the history of Europe?
8. Give the causes and results of the Crusades.
9. What were the results of the Norman conquest of England?
10. Describe the period of transition from mediæval to modern history.
11. Give a brief account of the Reformation in Germany under Luther.
12. (a) Mention the principal events in the history of England during the last one hundred years.
    (b) Treat somewhat fully any one of these events.

GEOGRAPHY.

1. Draw an outline map of Michigan.
2. Describe the cumulus cloud. During what part of the day is it most common?
3. Give *five* marked illustrations of man's skill in overcoming adverse physiographic conditions for the purpose of promoting material welfare.
4. Describe the great low plain of North America, explaining how its topography has aided the development of its civilization.
5. Give the chief physiographic reason that helps to account for the growth of *each* of the following cities: Milwaukee, Allegheny, Boston, Hamburg, Carlsbad.
6. Describe the Rocky mountain system and state its effect on the climate of North America.
7. Where does a degree of latitude have the greatest length? Why? State in miles the approximate length of a degree of latitude.
8. Mention *two* services rendered by the weather bureau.
9. Describe the formation of a glacier.
10. Give the location of *five* of the following and mention a point of interest connected with each one selected: Annapolis, Norfolk, Auburn, Pittsburg, New Haven, New Orleans, Salt Lake City, San Francisco.

GEOLOGY.

1. Define *five* of the following: *strike, talus, syncline, canon, till, geyser, stalactite.*
2. Show the relation of stratified and unstratified rock in the earth's crust.
3. Mention *two* ways by which wind causes denudation of rock.
4. Describe the geologic effect of (a) river ice, (b) ocean waves.
5. Describe *two* kinds of veins classified according to the source of heat.
6. Describe the animal life of the Tertiary era.
7. Give *two* illustrations of historical geology that you have observed.

8. Give the characteristic plant life and the characteristic animal life of the Cretaceous era.
9. Describe the formation of peat-beds.
10. Describe the animal life of the Quaternary era. Account for the migration of animals during this era.

GEOMETRY.

(Number each step; state all the reasons in full; omit any two marked *.)

1. If the diagonals of a quadrilateral bisect each other the figure is a parallelogram.
2. Name and define the different kinds of quadrilaterals. Show that the straight line joining the non-parallel sides of a trapezoid is parallel to the other two sides and equal to half their sum.
*3. To draw a tangent to a given circle and parallel to a given straight line.
4. The areas of two similar triangles are to each other as the squares of any two homologous sides.
5. Through a given point in the side of a triangle to draw a straight line dividing the triangle into two equal parts.
*6. The base of a triangle is 20 inches and its altitude 15 inches. Find the area of the trapezoid cut off by a line 6 inches from the vertex.
*7. A tree casts a shadow 120 feet long when a vertical staff 8 feet high casts a shadow 6 feet long. How high is the tree?
8. A straight line parallel to each of two intersecting planes is parallel to their line of intersection.
*9. Find the volume of a sphere circumscribing a cube whose edge is $6\sqrt{3}$.
10. A triangular prism may be divided into three equal triangular pyramids.

GERMAN.

Translate into English:

Mein Erster Patient.

Am Abend des Tages ging ich zu meinen Verwandten; ich fand die Eltern nicht da, nur Cousinchen Marie war zu Hause und nahm meinen Besuch entgegen. Wir sassen am Fenster und liessen uns vom Mondlicht bescheinen, und dann habe ich ihr erzählt, wie ich zu meinem ersten Patienten gekommen war, und was ich dadurch für meinen Beruf gelernt hatte. Mariechen sagte nichts zu meiner Beichte, aber plötzlich fühlte ich mich von ihren Armen umschlungen. Sie sah mich mit feuchten Augen an. "Siehst du, Max," sagte sie, "jetzt weiss Gott, dasz dir diese Erkenntnis gleich mit dem ersten Patienten gekommen ist.—*Boyen.*

Translate into English:

Höher Als Die Kirche.

Die Sage kam mir, nachdem ich sie längst vergessen, wieder in den Sinn, als ich in einer kalten Winternacht auf der Höhe unseres Schlossberges stand und dem Bombardement des Fort Mortier lauschte. Es war eine rauhe, unheimliche Nacht. Der Sturm rüttelte mit wahrer Wut an dem Gipfel des Berges und schien uns die Mäntel vom Leibe reissen zu wollen: auch der letzte Neugierige hatte sich verloren, Niemand war mehr weit und breit um mich her, als das Mädchen, welches ich zur Begleitung mitgenommen, und mein treuer Beschützer, ein grosser Hund, der jeden neuen Windstoss und jedes Rascheln im Laub anknurrte und anbellte.—*Wilhelmine von Hillern.*

1. Translate into German:
   (a) We had to run in order to keep warm, (b) Many years ago I heard Liszt play, (c) If you had asked me, I should have told you the truth, (d) Whenever I come to the city I meet this old man, (e) To take revenge on an enemy when he is unfortunate, is cowardly.
2. Write the principal parts of *fressen, empfehlen, fechten, binden, umbringen.*
3. Give (a) the synopsis of *wissen* in the third person singular of the indicative and subjunctive active, (b) the second and the third person singular of the present indicative active of *tragen, stehlen, werden, loschen.*

4. Conjugate the future perfect indicative of *fallen*, the present subjunctive of *geben*, the imperative of *gehen*, the imperfect subjunctive of *antworten*, the first conditional of *gestehen*.
5. Write original German sentences of at least six words each, containing (a) a reflexive verb, (b) an impersonal verb, (c) a modal auxiliary, (d) a verb in the passive voice, (e) a verb with an inseparable prefix.

GRAMMAR.

1. What do you understand by the statement, "You must think in order to answer a question in grammar?" What effect should this statement have on the method of teaching grammar?
2. Give the office of the dependent clauses in the following sentences: (a) He was always desirous that the people should think for themselves. (b) It is by little things that we show ourselves. (c) He was such a schoolboy as a discerning master delights in. (d) It always seems to rain harder than it really is when you look at the weather through the window.
3. State the difference in use between the participle and infinitive. In the following sentences give the construction of the italicized words: (a) Soon his face was *worth going* far to see. (b) You see it gradually *growing* less dense. (c) He calls this *doing* his *country* a service.
4. Discuss fully the italicized words in the following sentences: (a) Now and then he would see a thin fin, *like* a shark's *fin*, drifting close to shore. (b) Aeschylus was, *heart and hand*, a lyric poet. (c) There is nothing born *but* has *to die*. (d) *In a word*, Rip was ready to *attend* to anybody's business *but* his *own*.
5. Write out in full the following elliptical sentences: (a) They built their cities as if for eternity. (b) What if this man Odin should have felt that perhaps he was divine. (c) Not that my motives were not as pure and patriotic as ever carried any man into office. (d) The sun is many times larger than the earth.
6. Write a paragraph on any one of the following topics: (a) Necessity for the historical study of English. (b) The result obtained by the study of grammar. (c) What the study of grammar contributes to the power of interpretation. (d) The contrast between the present method of studying grammar and the old method.
7. Analyze the following sentence: "But the life which is to endure grows slowly; and as the soil must be prepared before the wheat can be sown, so before the kingdom of heaven could throw up its shoots there was needed a kingdom of this world where the nations were neither torn in pieces by violence, nor were rushing after false ideals and spurious ambitions."
8. Name (voice, mode, tense, person, and number) the verb-phrases in the above.
9. Explain fully the construction illustrated in the words italicized in the following: (a) The students were read a severe *lecture* by the dean of the college. (b) I was shaken *hands* with.
10. State the tests for independent and dependent propositions and illustrate the distinction between them by sentences.

UNITED STATES HISTORY.

(Answer any ten questions.)

1. Give the causes which led to the discovery of America by Columbus.
2. Compare the colonies of Massachusetts and Virginia in regard to character of colonists, government, occupation of people, religion, education, manner of settlement, etc. What caused the difference?
3. Compare the English and French colonies in America in 1750 as to location, character, population, strength, weakness, etc.
4. Why did slavery die out in the Northern colonies and flourish in the Southern colonies?
5. Tell why the period from 1783 to 1789 is the "critical period" in the history of the United States.
6. Tell what you can about the Ordinance of 1787.

7. Give a brief sketch of the acquisitions of territory by the United States, telling when, why, and from whom obtained, and the conditions of the acquisition.
8. Give the causes and results of the War of 1812.
9. Mention the principal acts in the slavery controversy from 1820 to 1870. Write somewhat fully upon any one of them.
10. Name the principal events of Jackson's administrations and give a brief account of any two of them.
11. What were the differences between President Johnson and congress which led to the impeachment of the president?
12. (a) Why is it said that the Spanish-American war of 1898 opened a new period in the history of the United States.
    (b) What new problems are involved in the acquisition of Hawaii, Porto Rico, and the Philippines?

LATIN.

1. Translate the following:
   Caesar certior factus ab Titurio omnem equitatum et levis armaturae Numidas, funditores sagittariosque, pontem traducit atque ad eos contendit. Acriter in eo loco pugnatum est. Hostes impeditos nostri in flumine aggressi magnum eorum numerum occiderunt; pereorum corpora reliquos, audacissime transire conantes, multitudine telorum reppulerunt; primos, qui transierant, equitatu circumventos interfecerunt.—*Caesar Bk. II.*
2. Decline the following nouns: *equitatum, funditores, pontem, loco, hostes, flumine.*
3. Decline the following pronouns: *eos, nostri, qui.*
4. Give the principal parts of the following verbs: *traducit, contendit, aggressi, occiderunt, interfecerunt.*
5. Decline the following adjectives: *certior, omnem, magnum.*
6. Compare the following adjectives: *certior, levis, magnum, primos.*
7. Give the construction of the following words: *Titurio, armaturae, hostes, reliquos, equitatu.*
8. Translate the following:
   Caesar, cum septimam legionem, quae iuxta constiterat, item urgeri ab hoste vidisset, tribunos militum monuit, ut paulatim sese legiones coniungerent et conversa signa in hostes inferrent. Quo facto cum aliis alii subsidium ferrent, neque timerent, ne aversi ab hoste circumvenirentur, audacius resistere ac fortius pugnare coeperunt.—*Caesar Bk. II.*
9. Give the construction of: *urgeri, vidisset, inferrent, timerent, circumvenirentur.*
10. Translate into Latin:
    The legions were hard pressed by the enemy and feared that they would be surrounded. If they had faced about, they would have fought more bravely.

LITERATURE.

1. Describe *two* works written before the Norman conquest.
2. Give the author and sketch the general plan of *one* of the following: (a) Canterbury tales, (b) Utopia, (c) Faerie Queene.
3. Connect each of *two* of the following characters with one of Shakespeare's plays and explain the connection: Laertes, Cassius, Miranda, Ophelia.
4. Give an account of the literary work of *two* of the following: Addison, Gibbon, Ruskin, George Eliot.
5. Write a sketch of a leading character in *one* of the following works: (a) *Vicar of Wakefield*, (b) *Ivanhoe*, (c) *Dombey and Son.*
6. Give the author and title of the work in which *one* of the following characters appears, and show the part played by this character in the development of the story: Tom Tulliver, Paul Dombey, Dinah Morris, Romney Leigh, King Arthur.
7. Give an account of *two* of the following satires: (a) *Rape of the Lock*, (b) *Hudibras*, (c) *English Bards and Scotch Reviewers*, (d) *Gulliver's Travels.*
8. Mention with authors, *two* American novels treating of some public question. State the question discussed by each and describe its treatment.
9. Sketch the development of American literature during the last fifty years.
10. Give an account of *two* of the following authors: Henry D. Thoreau, Francis Parkman, Charles Dudley Warner, William H. Prescott, Bayard Taylor.

4. Conjugate the future perfect indicative of *fallen*, the present subjunctive of *geben*, the imperative of *gehen*, the imperfect subjunctive of *antworten*, the first conditional of *gestehen*.
5. Write original German sentences of at least six words each, containing (a) a reflexive verb, (b) an impersonal verb, (c) a modal auxiliary, (d) a verb in the passive voice, (e) a verb with an inseparable prefix.

GRAMMAR.

1. What do you understand by the statement, "You must think in order to answer a question in grammar?" What effect should this statement have on the method of teaching grammar?
2. Give the office of the dependent clauses in the following sentences: (a) He was always desirous that the people should think for themselves. (b) It is by little things that we show ourselves. (c) He was such a schoolboy as a discerning master delights in. (d) It always seems to rain harder than it really is when you look at the weather through the window.
3. State the difference in use between the participle and infinitive. In the following sentences give the construction of the italicized words: (a) Soon his face was *worth going* far to see. (b) You see it gradually *growing* less dense. (c) He calls this *doing* his *country* a service.
4. Discuss fully the italicized words in the following sentences: (a) Now and then he would see a thin fin, *like* a shark's *fin*, drifting close to shore. (b) Aeschylus was, *heart and hand*, a lyric poet. (c) There is nothing born *but* has *to die*. (d) *In a word*, Rip was ready to *attend* to anybody's business *but* his *own*.
5. Write out in full the following elliptical sentences: (a) They built their cities as if for eternity. (b) What if this man Odin should have felt that perhaps he was divine. (c) Not that my motives were not as pure and patriotic as ever carried any man into office. (d) The sun is many times larger than the earth.
6. Write a paragraph on any one of the following topics: (a) Necessity for the historical study of English. (b) The result obtained by the study of grammar. (c) What the study of grammar contributes to the power of interpretation. (d) The contrast between the present method of studying grammar and the old method.
7. Analyze the following sentence: "But the life which is to endure grows slowly; and as the soil must be prepared before the wheat can be sown, so before the kingdom of heaven could throw up its shoots there was needed a kingdom of this world where the nations were neither torn in pieces by violence, nor were rushing after false ideals and spurious ambitions."
8. Name (voice, mode, tense, person, and number) the verb-phrases in the above.
9. Explain fully the construction illustrated in the words italicized in the following: (a) The students were read a severe *lecture* by the dean of the college. (b) I was shaken *hands* with.
10. State the tests for independent and dependent propositions and illustrate the distinction between them by sentences.

UNITED STATES HISTORY.

(Answer any ten questions.)

1. Give the causes which led to the discovery of America by Columbus.
2. Compare the colonies of Massachusetts and Virginia in regard to character of colonists, government, occupation of people, religion, education, manner of settlement, etc. What caused the difference?
3. Compare the English and French colonies in America in 1750 as to location, character, population, strength, weakness, etc.
4. Why did slavery die out in the Northern colonies and flourish in the Southern colonies?
5. Tell why the period from 1783 to 1789 is the "critical period" in the history of the United States.
6. Tell what you can about the Ordinance of 1787.

7. Give a brief sketch of the acquisitions of territory by the United States, telling when, why, and from whom obtained, and the conditions of the acquisition.
8. Give the causes and results of the War of 1812.
9. Mention the principal acts in the slavery controversy from 1820 to 1870. Write somewhat fully upon any one of them.
10. Name the principal events of Jackson's administrations and give a brief account of any two of them.
11. What were the differences between President Johnson and congress which led to the impeachment of the president?
12. (a) Why is it said that the Spanish-American war of 1898 opened a new period in the history of the United States.
    (b) What new problems are involved in the acquisition of Hawaii, Porto Rico, and the Philippines?

LATIN.

1. Translate the following:
   Caesar certior factus ab Titurio omnem equitatum et levis armaturae Numidas, funditores sagittariosque, pontem traducit atque ad eos contendit. Acriter in eo loco pugnatum est. Hostes impeditos nostri in flumine aggressi magnum eorum numerum occiderunt; pereorum corpora reliquos, audacissime transire conantes, multitudine telorum reppulerunt; primos, qui transierant, equitatu circumventos interfecerunt.—*Caesar Bk. II.*
2. Decline the following nouns: *equitatum, funditores, pontem, loco, hostes, flumine.*
3. Decline the following pronouns: *eos, nostri, qui.*
4. Give the principal parts of the following verbs: *traducit, contendit, aggressi, occiderunt, interfecerunt.*
5. Decline the following adjectives: *certior, omnem, magnum.*
6. Compare the following adjectives: *certior, levis, magnum, primos.*
7. Give the construction of the following words: *Titurio, armaturae, hostes, reliquos, equitatu.*
8. Translate the following:
   Caesar, cum septimam legionem, quae iuxta constiterat, item urgeri ab hoste vidisset, tribunos militum monuit, ut paulatim sese legiones coniungerent et conversa signa in hostes inferrent. Quo facto cum aliis alii subsidium ferrent, neque timerent, ne aversi ab hoste circumvenirentur, audacius resistere ac fortius pugnare coeperunt.—*Caesar Bk. II.*
9. Give the construction of: *urgeri, vidisset, inferrent, timerent, circumvenirentur.*
10. Translate into Latin:
    The legions were hard pressed by the enemy and feared that they would be surrounded. If they had faced about, they would have fought more bravely.

LITERATURE.

1. Describe *two* works written before the Norman conquest.
2. Give the author and sketch the general plan of *one* of the following: (a) Canterbury tales, (b) Utopia, (c) Faerie Queene.
3. Connect each of *two* of the following characters with one of Shakespeare's plays and explain the connection: Laertes, Cassius, Miranda, Ophelia.
4. Give an account of the literary work of *two* of the following: Addison, Gibbon, Ruskin, George Eliot.
5. Write a sketch of a leading character in *one* of the following works: (a) *Vicar of Wakefield*, (b) *Ivanhoe*, (c) *Dombey and Son.*
6. Give the author and title of the work in which *one* of the following characters appears, and show the part played by this character in the development of the story: Tom Tulliver, Paul Dombey, Dinah Morris, Romney Leigh, King Arthur.
7. Give an account of *two* of the following satires: (a) *Rape of the Lock*, (b) *Hudibras*, (c) *English Bards and Scotch Reviewers*, (d) *Gulliver's Travels.*
8. Mention with authors, *two* American novels treating of some public question. State the question discussed by each and describe its treatment.
9. Sketch the development of American literature during the last fifty years.
10. Give an account of *two* of the following authors: Henry D. Thoreau, Francis Parkman, Charles Dudley Warner, William H. Prescott, Bayard Taylor.

PHYSICS.

(Answer any ten questions.)

1. What causes capillary attraction and what are the laws of capillary attraction?
2. A body projected vertically downward has at the end of the seventh second, a velocity of 235.12 feet. How many feet did it traverse the first three seconds?
3. Derive the formula Kinetic Energy, $\frac{w v^2}{2g}$
4. Trace a ray through a biconcave lens for the location of its principal focus.
5. (a) Explain "a step up" transformer.
   (b) Explain "a step down" transformer.
6. A copper wire $\frac{1}{10}$ of an inch in diameter has a resistance of 9 ohms per mile; what is the resistance of a mile of copper wire $\frac{1}{40}$ of an inch in diameter?
7. Define: dyne, poundal, weight, resistance, ohm, energy, shadow, umbra, gravitation.
8. Find the image of an object placed in front of a concave mirror, and show that the size of the image depends upon the location of the object.
9. A force of 60 dynes acts on a body for one minute and imparts to it a velocity of 900 cms. a second. What is the mass of the body?
10. Show by a drawing why a rainbow is circular.
11. Deduce the formula for the space traveled over by a freely falling body during any second.
12. Ten grams of steam at 100° C. condensed in one kilogram of water at 0° C. raised the temperature to 6.3° C. Calculate the latent heat of steam.

PHYSIOLOGY.

1. Discuss the composition of mature bone. How does bone composition vary with age and what are the advantages and disadvantages of such variation?
2. Describe the main characteristics of the ideal school desk.
3. Describe by means of a drawing the structure of a voluntary muscle fiber. How is it brought into action, what physical and chemical changes occur within, and why, after excessive action, will it require rest?
4. Describe the effect of sleep on (a) respiration, (b) circulation, (c) digestion, (d) temperature of body.
5. Discuss in full the changes which occur in the air and in the blood while they are in the lungs.
6. Give a full account of the mechanism by which the lungs are filled, making use of a diagram.
7. Describe the structure of the cerebrum and state its functions. Discuss the "localization of functions" in the cerebrum.
8. Describe from drawings the structure and functions of the spinal cord.
9. Discuss the effects of tobacco upon the nervous and muscular systems of the growing child.
10. What views are generally held in regard to the cause and means of spreading of consumption? What precautions should be taken in the schoolroom?

RHETORIC.

1. In the following paragraph state the topic sentence and show how the thought contained in the topic sentence is developed in each of the other sentences:
   All was now bustle and hubbub in the late quiet schoolroom. The scholars were hurried through their lessons, without stopping at trifles; those who were nimble skipped over half with impunity, and those who were tardy, had a smart application now and then, to quicken their speed, or help them over a tall word. Books were flung aside without being put away on the shelves, inkstands were overturned, benches thrown down, and the whole school was turned loose an hour before the usual time.

2. Correct the following sentences: (a) Desiring to have pure air, his house was built on a high elevation, (b) Watching the growth of a pansy is very interesting and it is also a beautiful flower to have, (c) When I got your letter I got anxious and started immediately, thinking I could get the train that night, but I got more cold on the way and had to go back home, (d) The colonists, who were contending for a principle not for money, threw the tea into the sea, which the English sent to Boston for them, (e) I will tell you the balance of the story if I can do so without injuring his character.
3. Choose *five* of the following pairs of words and distinguish the words of each pair chosen: to confuse, to embarrass; to despise, to dislike; acquaintance, friendship: foreigner, stranger; allegiance, loyalty; aspiration, ambition; to ask, to demand; exercise, exertion; pity, sympathy.
4. Write at least 75 words on the construction of the paragraph, touching on *two* of the following: (a) unity, (b) continuity (sequence of thought), (c) relation of parts.
5. Re-write the following in two or more sentences, paying special attention to clearness and force of style:

   As time goes on, those things which seemed to be a burden at one time become lighter and lighter, and even very pleasant, and the student begins to realize that school life is not so hard as he first thought, and, although there are some difficulties to overcome always, there are a great many things which go to make up that opinion which many students hold, namely, that their school days were undoubtedly the pleasantest days of their lives.
6. Define and illustrate *loose sentence, periodic sentence, balanced sentence.*
7. Criticize the following paragraph in regard to unity in sentence structure and use of connectives, re-writing in correct form:

   I went through eight grades in the elementary school, and some of my teachers told my mother that I was a wonderfully bright child and others did not flatter me so much. My mother kept me home from school a year but I was not very well and the doctor said I must rest; or at least he said that I must not study.
8. Give a list of books which the teacher of rhetoric and composition would find almost indispensable.

9-10. Write an essay of at least 250 words on one of the following topics:
   The Pan-American Exposition.
   The National Educational Association.
   Progress in the Nineteenth Century.

SCHOOL LAW.

1. Who are legal voters at a school meeting?
2. Name 6 powers of qualified voters at a school meeting.
3. Name the different kinds of certificates that may be granted to teachers in Michigan.
4. (a) What persons constitute the school board in the township districts of the Upper Peninsula?
   (b) What powers have such boards that are not conferred upon ordinary district boards?
5. Give the main provisions of the compulsory school attendance law.
6. Give the procedure by which a graded school district may bond itself to build a new school house.
7. How may district libraries be established?
8. (a) Who has the authority to prescribe a course of study? (b) Adopt text books?
9. Give the provisions of the law authorizing the introduction of kindergarten methods in the public schools.
10. What authority has the county commissioner of schools over graded schools in his county?

SPELLING.

1. proceeding
2. deposit
3. feasible
4. preparation
5. supersede
6. momentoes
7. tension
8. beneficial
9. civilization
10. chagrined
11. eccentric
12. horizontal
13. finally
14. necessarily
15. coercion
16. complacence
17. peaceable
18. benefited
19. extravagant.
20. miscellaneous
21. tranquillity
22. achieving
23. isosceles
24. Philippines
25. condescension
26. vacillate
27. lassitude
28. valleys
29. utensil
30. imperial
31. cynical
32. exaggerate
33. amenable
34. battalion
35. aspersion
36. conducive
37. pursuing
38. satirical
39. vivacious
40. essential
41. onerous
42. procedure
43. phraseology
44. ingenious
45. pretence
46. prejudicial
47. preceding
48. secession
49. Neurology
50. fascination

THEORY AND ART OF TEACHING.

1. Mention five books on education with which in your judgment a teacher ought to be familiar.
2. What is meant by self-activity? Illustrate the application of the principle of self-activity in education.
3. Discuss the relation of motor activity to intellectual training.
4. In discussing the principles that should be followed in making a course of study, a well known writer on education has recently used the following language: "There is no such thing as power in general that can be cultivated through the pursuit of any one subject, and can then be drawn upon any time for successful achievement in other subjects." Discuss this statement.
5. "It was apparent, therefore, that what was needed was not an enrichment of the course of study by merely inserting certain new subjects into the later years of the grammar school course and making room for these subjects by cutting out certain details of other subjects already found there. What was needed was an enrichment involving a total revision of the course from the beginning."—Hanus, *Educational Aims and Methods.*

   Discuss the above quotation, and give in outline the changes necessary to effect what would seem to be a rational enrichment of the course of study in both elementary and secondary schools.
6. What is meant by the term nature-study? What importance would you give to nature-study in arranging a course of study?
7. Take any fact not directly presentable to the senses, such as a historical event, and explain fully the process which the child's mind goes through in grasping the fact. How does the choice of words in setting forth the fact further or hinder the process?
8. "Through facts to principles." Explain this fully.
9. Discuss briefly the bearing of rewards and punishments on the development of character.
10. What are the characteristics of a good recitation?

ZOOLOGY.

1. Define *five* of the following: *nucleus, protozoa, porifera, tentacle, paramœcium, assimilation, sensation.*
2. From observations made while dissecting, describe the various parts of a worm, either earth or marine. Use drawings to illustrate.
3. Give the life history of the butterfly.
4. Describe the internal structure of the amphioxus. What characteristic of the structure of the amphioxus renders it specially interesting?
5. Mention *five* kinds of animals abounding in your vicinity and assign each to its proper order.
6. Explain how *each* of the following is specially adapted by structure to perform its peculiar function: foot of the snail, eye of the owl.
7. Mention *four* points, as determined by increasing complexity of structure, that assign fish to a higher place in the scale of life than lobsters.
8. Mention *two* points, as determined by increasing complexity of structure, that assign frogs to a higher place in the scale of life than sea-urchins; bees to a higher place than worms.
9. Compare the following as to method of obtaining food: vorticella, sea-anemone, starfish.
10. Show that *each* of the following is well adapted by structure to its mode of life: tiger, camel.

COUNTY EXAMINATIONS.

II. QUESTIONS PREPARED BY THE SUPERINTENDENT OF PUBLIC INSTRUCTION FOR THE REGULAR EXAMINATION, MARCH, 1901.

ALGEBRA.

FIRST GRADE.

1. Explain as to a class the "law of signs" in subtraction and multiplication.
2. State and prove three principles of "Theory of Exponents."
3. $\sqrt{28+10\sqrt{3}}=?$
4. $\frac{\sqrt{x^2+1}-\sqrt{x^2-1}}{\sqrt{x^2+1}+\sqrt{x^2-1}}=\frac{1}{4}$
5. Prove the following:
   (a) If $\frac{a}{b}=\frac{c}{d}$ and $\frac{x}{y}=\frac{c}{d}$, $\frac{a}{x}=\frac{b}{y}$
   (b) If three quantities are in continued proportion, the middle term is equal to the square root of the product of the other two.
   (c) If four quantities are in proportion, they are in proportion by division.
6. Define harmonic progression, and demonstrate that if a series of numbers are in harmonic progression their reciprocals are in arithmetical progression.
7. $\left\{\begin{matrix} x^2+xy=12 \\ xy-2y^2=1 \end{matrix}\right\}$ to find x and y.
8. The sum of two numbers is to their difference as 4 to 1, and the sum of their cubes is 152. What are the numbers?
9. Three numbers whose sum is 15 are in arithmetical progression; but if 1, 4, and 19 be added to them respectively, they will be in geometrical progression. What are the numbers?
10. Develop four terms of $(a+1)^{n+1}$ and deduce principles governing (a) coefficients, (b) exponents, (c) signs.

SECOND GRADE.

1. Divide $x^3+y^3-z^3+3xyz$ by $x+y-z$.
2. Fifty times the difference between the seventh and eighth parts of a number exceeds half the number by 44. Find the number.
3. $xa\div b+xb\div a=a^2+b^2$. Find value of x.
4. $(a+2b-3c+4d)^2=?$ $\sqrt{x^2+4y^2+9z^2+4xy+6xz+12yz}=?$
5. Factor (1) a^5b^5-243; (2) $2x^2+3x+1$.
6. Find the L. C. M. of x^2+4x+4, x^2+5x+6.
7. A and B can build a fence in 8 days and with C's help they can build it in 6 days. How long will it take C alone to build the fence?
8. A number expressed by two digits is equal to four times the sum of those digits; but if 18 be added to the number, the digits will be reversed. Find the number.
9. $x^3-x^{\frac{3}{2}}=56$. Find value of x.
10. A bought sheep for $80. If he had bought four more for the same money, he would have paid $1 less per head. How many sheep did he buy?

ARITHMETIC.

Mental Work.

(Second grade applicants write full analysis of first five; first grade applicants of last five. 25 credits for this work.)

1. Goods marked 40% above cost are discounted 10% in selling, and then a collector is paid 20% for collecting the bill. What per cent of profit does the dealer make?
2. What per cent of a peck is 50% of a quart?
3. A party of surveyors consumes $\frac{1}{10}$ bbl. crackers per day. They start out with $\frac{4}{5}$ bbl.; how many days have they been out when there is $\frac{2}{5}$ bbl. left?
4. Sold ½ lb. tea for what ⅘ lb. cost. What is the rate of gain or loss?
5. I buy goods ⅓ off the list price and sell them ¼ off the list price. What is the per cent of gain or loss?
6. A mixture contains three parts brandy and two parts water. How much must be drawn off and replaced by water so that half the mixture is water?
7. At what time after three o'clock are the hour and minute hands of a watch together?
8. Does a person gain or lose in selling two articles at the same price, provided he gains the same per cent on one that he loses on the other? Explain your answer.

Written Work.

(Second grade applicants solve the first five; first grade applicants the last five. 25 credits for this work.)

1. (a) Give the principles upon which finding the L. C. M. depends.
   (b) Raise 2 to the 14th power by the shortest process you can.
2. What is the length of a cubical cistern that holds 150 bbls.?
3. Insured my house for ¾ value at 1¼%, paying $1 for the policy. If the total cost of insurance was $38.50, what was the value of the house?
4. What will it cost to fence a farm of 150 acres at $2.50 per rod, if the length is to the breadth as 5 to 3?
5. Formulate a problem to illustrate the application of cancellation to interest, and solve the same.
6. If a rise of each degree in temperature increases the velocity of sound 1 ft. per sec., how far will sound travel in 8 sec., temperature 70°, provided it travels 5450 ft. in 5 sec., temperature 32°?
7. If under the same pressure, heating the air by a furnace increases its volume ⅙, what must be the area of the cross section of a cold-air box to furnish cold air enough which when heated will supply five 8-inch flues and one 12-inch flue?
8. A owns a rectangular field 40 rods long by 30 rods wide, with a road running across it from N. E. to S. W., and a barn standing upon the S. E. corner. He wishes to fence off a lane from the barn direct to the road. How many rods of fence must he build?

Mental Work.

(Write a full analysis; 25 credits for this work.)

1. Two boys, A and B, buy papers at one cent each; A sells three for 5 cents, B 4 for 5 cents. What per cent of A's gain is B's gain?
2. The remainder is 41; if both minuend and subtrahend be multiplied by 101, what will the remainder be?
3. If ⅔ lb. of tea is worth ¾ lb. of coffee and 2 lbs. of coffee are worth 15 lbs. of sugar, how many lbs. of sugar will 96 lbs. of tea buy?
4. Divide 15½ apples among three boys in the ratio of ½, ⅓, ⅕.
5. Analyze the reduction of ½, ⅔, ¾ to common denominators.

Written Work.

CLASS B.

(25 credits for this work.)

1. By supplying the city of Munich with plenty of pure water, the death rate from typhoid fever was reduced from 242 per 100,000 to 140 per million. At the same rate of reduction, what would be the death rate in a town of 10,000, having 20 deaths per annum?
2. How many trees can be set in a square field of 10 acres, if they are two rods apart and the outside rows two rods from the fence?
3. A man received $735 income on Erie 7's bought at a premium of 10 per cent, brokerage ¼ per cent. How much did he invest?
4. Formulate and solve a problem to illustrate the use of cancellation in interest.
5. Bought 1 doz. pairs Men's Shoes at $1.50.
   1 case (12 prs.) of Children's Oxfords at $3.25 a pair.
   1 gross Leather Laces at 50 cents a gross.
   2 cases Children's and Misses' Oil Grain at $1.00 a pair.
   1 doz. Men's Kangaroo Calf at $1.60 a pair.
   ½ doz. Misses' Sandals at $0.90 a dozen.
   Make out a receipted bill for the above, allowing 5% and 3% off for cash, using the name of some shoe dealer.

CLASS A.

(25 credits for this work.)

1. By supplying the city of Munich with plenty of pure water, the death rate from typhoid fever was reduced from 242 per 100,000 to 140 per million. At the same rate of reduction, what would be the death rate in a town of 10,000, having 20 deaths per annum?
2. Give the principles of division and show how they apply to fractions.
3. (a) What are factors? Prime? Composite? Odd numbers?
   (b) What numbers are exactly divisible by (a) 2, (b) 3, (c) 4, (d) 5, (e) 9, (f) 10?
4. Formulate and solve a problem to show the application of cancellation to business, and explain as to a class the solution.
5. Outline a lesson for a third grade class in number work.

MENTAL ARITHMETIC.

(Accuracy and speed test.)

Note—(1) Distribute these lists among all the applicants, placing them face down upon the desks.
(2) Each applicant write his number (or name) across the back of the slip.
(3) At a signal from the Commissioner, all reverse the slips and, in *the right-hand margin*, write as many answers to the 20 questions as possible in *15 minutes*.
(4) At the second signal, all again reverse the papers, when they will be at once collected by the examiners.
Give (a) *one-fourth per cent* for each answer written. (b) One per cent additional for each *correct* answer, making 25% for this part of the examination.

1. Add 25, 35, 45, 65, 75.
2. What cost 12½ yds. of cloth at 6 cents a yard?
3. From the sum of the L. C. M. and the G. C. D. of 12 and 16 take the difference.
4. What is the L. C. D. of 4ths, 5ths, 6ths and 12ths?
5. What per cent of ⅔ is ¾?
6. Paid 2 cents and sold for 2½, what is the gain per cent?
7. ⅛ of my receipts is profit. What is my gain per cent?
8. $\sqrt{25 \times 72 \times 18} = ?$
9. 19683 is a perfect cube; what is its cube root?
10. What cost ⅞ tons of coal at $8.80 a ton?
11. What is $25 \times \frac{1}{5}$? $50 \times \frac{2}{10}$? $200 \times \frac{12}{15}$?

12. 6 times 6⅔ are how many times 3?
13. 12 men do a piece of work in 5½ days; how long will it take 6 men?
14. 18 men earn $75½ in a week; what will 9 men earn in 2 weeks?
15. 3¾ doz. eggs cost 60 cents; what is the cost per dozen?
16. The product of 2 numbers in 12½, and one of them is ½; what is the other?
17. Sold my watch for $14, gaining ⅛ the cost; what did it cost?
18. Find the bank discount on $120 for 63 days at 6 per cent.
19. Multiply 27 by 3⅓; 36 by 11⅛.
20. Divide 1,200 by 33⅓.

BOTANY.

FIRST GRADE.

1. Define protoplasm, node, stomata, fascicle, a fruit, cotyledon.
2. Describe the three classes into which herbs are by character divided.
3. Give botanical description of the lily family.
4. Give the characteristics of (a) exogenous plants, (b) endogenous plants.
5. Name eight flowers of the order Rosacea.
6. What name is applied to the flower clusters of the following: plantain, snowball, lily of the valley, horse chestnut, oats, chickweed?
7. What is vernation? Of what importance is it?
8. Name the parts of a complete flower.
9. Explain the terms: genus, species, order, class.
10. Describe in detail the rose geranium as a growing and flowering plant.

SECOND GRADE.

1. Define botany, perfect flower, symmetrical flower.
2. Make a drawing of the following leaf forms: ovate, lanceolate, pinnately compound, hastate, linear.
3. What is a bud? Name different kinds.
4. Describe differences between herbs, shrubs, trees.
5. What is the purpose of the flower and fruit?
6. Distinguish between the following terms: apetalous, monopetalous, polypetalous.
7. Name and describe the different arrangement of buds.
8. Give examples of stolon, runner, root-stock, tuber bulb.
9. Describe fully and botanically the apple blossom.
10. Name ten wild flowers that grow in your locality.

CIVIL GOVERNMENT.

FIRST AND SECOND GRADES.

1. When two states of the federal union disagree what solution of the difficulty is possible?
2. Briefly tell how the District of Columbia is governed.
3. What is meant by a pocket veto?
4. Show the relation between the ordinance of 1787 and the support of our common schools.
5. What is meant by homesteads and how may they be acquired?
6. Briefly compare the power of the President and the English sovereign.
7. Distinguish between original and appellate jurisdiction.
8. Briefly mention the sources of revenue of the federal government.
9. What is the purpose of the governor's message to the legislature?
10. Give names of at least three books you use as reference books on civil government, telling on what subjects you consider each valuable.

THIRD GRADE, CLASS B.

1. Compare the terms of United States senators and representatives, stating object of such provision.
2. Tell what is meant by civil service reform and under whose administration it became a law?

3. State three ways in which a bill may become a law.
4. Distinguish between ambassadors and consuls.
5. Tell how an author is protected in his rights to publish his works and to whom he should apply for such protection.
6. Mention two men prominent either in territorial or political history of Michigan, briefly stating the services rendered the state.
7. Why should the man without children help pay the school tax?
8. Briefly show the importance of the speakership in Congress or legislature.
9. In what respect are the duties of the United States senator more responsible than those of a representative?
10. Who is secretary of the war department and why is he prominent at the present time?

CLASS A.

1. Mention a few topics which you consider in your talks to pupils on government.
2. Tell what is meant by civil service reform and under whose administration it became a law.
3. Why should the child early be taught the rudiments of civil government?
4. Distinguish between ambassadors and consuls.
5. Why should a person holding office of trust under the United States not be allowed to accept gifts or titles from foreign powers without consent of Congress?
6. Mention two men prominent either in territorial or political history of Michigan, briefly stating the services rendered the state.
7. Why should the man without children help pay the school tax?
8. Briefly show the importance of the speakership in Congress or legislature.
9. Mention two appointive offices filled by the chief executive of Michigan.
10. Who is secretary of the war department and why is he prominent at the present time?

GENERAL HISTORY.

FIRST GRADE.

1. Describe briefly the Phœnecians with respect to their history, characteristics, and colonies.
2. Make a list of those nations or people who at some time were conquered by Rome and made a part of the Empire.
3. Indicate, as you conceive them, the strength and weakness of the Greek civilization.
4. Tell of the Crusades as to: (a) original causes, (b) number, (c) permanent results.
5. Characterize briefly five of the following, including country, century, and for what noted:

Bismark,	Frederick the Great,	Robespierre,
Richelieu,	"Grand Old Man,"	John Knox.

6. (a) What was the extent and character of Charlemange's empire? (b) Into what modern countries is it divided?
7. Give general character, original location, conquests, and settlements of the following people: (a) Huns, (b) Goths, (c) Saxons.
8. What do you understand by the Renaissance?
9. Mention a prominent character in each of the five leading powers of the world, telling why you regard him as such.
10. Compare the reign of Victoria with that of Elizabeth: (a) relations with foreign powers, (b) strength of kingdom during reign, (c) life of common people.

SECOND GRADE.

1. Give the history and government of the Netherlands, and sketch the life of the present ruler.
2. What effect had the feudal system upon civilization?
3. Of the French Revolution tell: (a) its aim, (b) nature, (c) leading characters, (d) effect on France in particular and Europe in general.
4. What were some results of the Crusades?
5. Show the influence of the physical features of a country on the development of civilization.
6. What was the Holy Alliance?

7. What was the extent and character of the work of Peter the Great?
8. Who are the present Czar and Czarina of Russia?
9. Characterize briefly five of the following, including country, century, and for what noted:

Bismark,	Richelieu,	Frederick the Great,
"Grand Old Man,"	Elizabeth,	Victoria.

10. Name five important events of the past century under the following heads: (a) wars, (b) inventions and discoveries, (c) politics.

GEOGRAPHY.

FIRST AND SECOND GRADES.

1. What should be the central thought in all geography teaching, and what special points are to be noted in the study of any country?
2. How does the spherical form of the earth effect the direction of the winds and the ocean currents? Illustrate.
3. State the effect of climatic conditions upon the physical and mental development of man.
4. Give your method of teaching physical geography, and tell how you make practical application of supplementary work?
5. Give characteristics of the plant and animal life of the Arctic regions.
6. Show how war teaches geography.
7. Locate eight higher institutions of learning in the United States and two in Europe.
8. Name the five leading governments of the world and the ruler of each.
9. How would you explain to a class the necessity for commercial relations between two countries or between different parts of the same country?
10. Which of the natural sciences may be properly correlated with the study of geography?

THIRD GRADE, CLASS A.

1. (a) Name the different races of men. (b) Mention peculiar characteristics of each.
2. In what zones is Africa and what does that suggest as to climate?
3. How has the rise and fall of the Nile influenced the progress of civilization?
4. Locate Australia, speak of its (a) outline, (b) size, (c) surface, (d) products, (e) principal cities.
5. Name three trans-continental American railroads and give the western terminus of each.
6. Of what countries is wheat one of the chief products?
7. Describe Russia with respect to (a) surface, (b) climate, (c) education, (d) commerce.
8. Name the Gulf states and locate the capital and metropolis of each.
9. What and where are the following:

Tampa,	Sitka,	Hong Kong,	Honolulu,
La Salle,	Marquette,	Pensacola,	Ponchartrain.

10. (a) Give your method of teaching local geography. (b) How do you make practical application of supplementary work?

THIRD GRADE, CLASS B.

1. Compare North and South America as to (a) area, (b) physical features, (c) coast indentations, (d) climate, (e) animal and vegetable life.
2. Tell how you would teach the effect of elevation upon the climate of a region.
3. Define (a) latitude, (b) longitude, (c) parallel, (d) tropic, (e) river system, (f) mountain system, (g) meridian.
4. Name the countries of Europe which border on the Atlantic ocean or its arms, and locate the capital and metropolis of each.
5. Locate Australia, speak of its (a) outline, (b) size, (c) surface, (d) products, (e) principal cities.

6. Name three trans-continental American railroads and give the western terminus of each.
7. Describe Russia with reference to (a) surface, (b) education, (c) principal cities.
8. Name and give location of five great seaports of the world.
9. In what part of Africa are most of the European colonies? Indicate whether this region is favorable to colonization.
10. Locate the following:

Hong Kong,	Sitka,	Port Arthur,
Morocco,	Edinburgh,	Pekin.
	Tokio,	

GEOMETRY.

FIRST GRADE.

1. Give a theorem in geometry and illustrate its application by a question that might arise in some ordinary transaction.
2. Give a demonstration of a fundamental theorem not found in this examination.
3. Define (a) angle, (b) chord, (c) rhombus, (d) median, (e) corallary, (f) perigon.
4. (a) How many sides has a polygon the sum of whose interior angles is 48 right angles?
   (b) Demonstrate by line-segments that $(a-b)^2=a^2-2ab+b^2$.
5. What is the value of the square upon the side opposite the obtuse angle of a triangle? Demonstrate.
6. (a) Construct a square equal to two given squares.
   (b) Draw a triangle and describe a circle tangent to each side internally; another circle tangent externally to one side and the other two sides produced. Give proof.

Note—Solve a or b.

7. Construct a triangle, having given the base, altitude, and radius of the circumscribed circle.
8. Prove that the perpendiculars from the vertices of a triangle pass through the same point.
9. Draw a tangent to two circles of unequal diameter.
10. Prove that if one of the acute angles of a right triangle is double the other, the hypotenuse is double the shortest side.

GRAMMAR.

FIRST AND SECOND GRADES.

1. Define complement, inflection, declension, interrogative adjective, nominative absolute.
2. (a) Give 10 Latin prefixes with their meanings.
   (b) Give 3 Greek suffixes with their meanings.
3. What clauses may be abridged by the use of an infinitive? Illustrate.
4. Explain, as to a class, the infinitive mode.
5. Give reasons why it is not necessary to teach the potential mode.
6. (a) Discuss the difference between the gerund and the participle. (b) How do you dispose of idiomatic expressions in analyzing a sentence?
7. Analyze—The king told his servant to wait where the firing of cannon would keep him awake, and when the king returned he found the servant dead.

Note—Give two authorities.

8. Give the construction of the italicized words in the following: Washington *as* a *general* was greatest, *yet* Nature gave *him such* manly *traits* that *to be like* him should be the *ambition* of every American boy.

Note—Give two authorities.

9 and 10. Make a careful outline, with principal heads and subheads, for an essay on any of the following topics: Nicaragua Canal, Queen Victoria, The Subsidy Bill, The High School.

THIRD GRADE, CLASS B.

1. Define comparison, complement, conjunctive adverb.
2. Write plurals of valley, folio, ashes, spoonful, beef.
3. Into what classes are coordinate conjunctions divided? Give examples.
4. (a) In what cases is *that* preferred to *who* and *which*?
   (b) Why is a relative pronoun sometimes called a conjunctive pronoun?
5. (a) What are the *principal parts* of a verb and why are they so called?
   (b) Define defective verb.
6. Name four things that the subjunctive mode may express, and illustrate each by a sentence.
7. Correct, if necessary, giving reasons for change:
   (a) Who shall I send this to?
   (b) Will you try and see him?
   (c) I wish he was here today.
   (d) I have only written three lines.
   (e) The book lays on the table.
8. Analyze—When we gave the matter serious thought, we considered him to be too young for the situation.

9 and 10. Make a careful outline, with principal heads and subheads, for an essay on any of the following topics: The Kindergarten, Queen Victoria, The New Navy, The Farmer.

THIRD GRADE, CLASS A.

1. Define comparison, complement, adjective pronoun, dative object.
2. Write plurals for valley, folio, ashes, spoonful, beef.
3. What is proper language work for the second grade?
4. What lessons on punctuation should be taught before the fourth grade?
5. (a) In what cases is *that* preferred to *who* and *which*?
   (b) Define "story," as used by primary teachers.
6. How do you teach the correct use of irregular verbs, and tense forms?
7. Write sentences to show the correct use of bad, badly; poor, poorly; few, many.

8, 9 and 10. Indicate the steps necessary to develop a story in the third grade on the topic, "The Orange."

ORTHOGRAPHY.

ALL GRADES.

1. What is the object of phonetics and in connection with what subject should it be taught?
2. Tell what you understand by word analysis, and give at least three words to illustrate.
3. Distinguish between primitive and derivative words; prefix and suffix. Illustrate.
4. Indicate the pronunciation of the following:

obligatory	mustache
indisputable	inquiries
exquisite	peremptory
chastisement	bouquet
acclimate	advertisement

5. Give words to illustrate:

ŭ, ē, ā, ă, ĕ, o̅, ŏ, ī, ă.

LIST OF WORDS.

Connecticut	Merrimac
reference	journalizing
absence	incongruous
permitted	partial
discipline	appreciated
precise	salmon
Delaware	peculiarity
Ishpeming	judgment
alcohol	lymphatic
etymology	mucous
indicative	pioneers
divorce	affirmative

synopsis

PENMANSHIP.

ALL GRADES.

Note—This must be written with pen; 50 credits for answers, 50 credits for handwriting.

1. State your opinion, with reasons, on the use of the pen in primary grades.
2. In what grade would you introduce the arm movement? Give reasons.
3. Mention the requisites of good business handwriting.
4. Give your opinion, with reasons, of the value of copy books in teaching penmanship.
5. Write one stanza of a patriotic poem.

PHYSICS.

FIRST GRADE.

1. Define energy, force, mass, conservation of energy.
2. (a) Give the laws of the pendulum.
   (b) Make and solve a problem to illustrate each.
3. Draw figures and explain parallelogram of forces.
4. Explain method of determining the specific gravity of a body lighter than water.
5. A body is thrown upward with a velocity of 240 ft. per second. How high will it rise?
6. Explain resonance. (b) Principle of the resonator.
7. Define refraction, prism, polarization, achromatic lens.
8. (a) Draw figure and explain the arrangement of cells in a battery, series grouping.
   (b) In multiple arc, or parallel.
9. What is Ohm's Law? (b) Define ampere, volt.
10. Explain, as to a class, the shunt dynamo.

SECOND GRADE.

1. The muzzle of a rifle is 30 ft. above the level of a lake, and a shot is fired horizontally with an initial velocity of 2,000 ft. per second, how far will it go before striking the water?
2. Explain the three states of matter.
3. Explain the lifting pump, illustrating by drawing.
4. A piece of metal weighs 3 pounds but loses $\frac{1}{24}$ of its weight when immersed in water. What is its specific gravity?
5. Give three laws for the vibration of cords.
6. Draw figure showing the effect of the triangular prism on rays of light.
7. Define conductor, insulator, induction, and give examples.
8. Explain fully the leyden jar.
9. Explain, as to a class, the electric telegraph.
10. What is the ratio of the intensity of light of two lamps, one of which is 10 ft. from a screen, the other 25 ft?

PHYSIOLOGY.

FIRST AND SECOND GRADES.

1. Mention two fluids which aid the digestion, stating the work of each.
2. Sketch a diagram of the heart, indicating the parts.
3. Briefly show why the shock of sudden falls does not more frequently injure the brain.
4. Write a short outline for the study of the bone suitable for sixth or seventh grade.
5. Briefly state the theory of vaccination.
6. (a) What do you understand by bacteria?
   (b) Mention three means of destroying them.
7. Tell what is meant by a sprain and what should be done to reduce the pain.
8. Account for the fact that sleeplessness is often produced by an empty stomach.
9. Why are blows upon the neck or abdomen always dangerous?
10. State your method of preparing blood for microscopic examination.

THIRD GRADE, CLASS B.

1. Name two organs which assist the kidneys in excreting the poisonous and worn-out matter from the circulation.
2. Name the parts of the ear, briefly stating function of each.
3. Account for the great thirst of intemperate people.
4. Show how reading upon a moving train and reading while lying down overworks the muscles of the eyes.
5. What directions have been issued by the State Board of Health to prevent small pox?
6. State the effect of alcohol upon the muscles.
7. What reasons can you give why cigarettes are specially injurious to boys?
8. Mention three articles of food, briefly stating the nutritive value of each.
9. Mention some precautions to be taken in the first stages of a cold and give reasons for same.
10. State the function of the blood.

CLASS A.

1. Name two organs which assist the kidneys in excreting the poisonous and worn-out matter from the circulation.
2. Of what importance is the study of physiology and hygiene?
3. Account for the great thirst of intemperate people.
4. Give your views of ventilation in not more than thirty words.
5. What directions have been issued by the State Board of Health to prevent small pox?
6. Mention two exercises which you consider valuable for physical development of children.
7. What reasons can you give why cigarettes are specially injurious to boys?
8. When pupils seem restless or drowsy what is your remedy? Give theory of same.
9. Mention some precautions to be taken in the first stages of a cold and give reasons for same.
10. (a) Why do we need extra covering during sleep? (b) What is the importance of eating slowly?

READING.

ALL GRADES.

1. Write an outline on Oliver Wendell Holmes.
2. What do you understand by a figure of speech? Give examples of two.
3. Classify the following poem, with reference to style, kind, and structure.

TO A WATERFOWL.

Whither, midst falling snow,
While glow the heavens with the last steps of day,
Far through their rosy depths dost thou pursue
Thy solitary way?
Vainly the fowler's eye
Might mark thy distant flight, to do thee wrong
As, darkly limmed upon the crimson sky,
Thy figure floats along.
Seek'st thou the plashy brink
Of weedy lake, or marge of river wide,
Or where the rocking billows rise and sink
On the chafed ocean side?
There is a Power whose care
Teaches thy way along that pathless coast,—
The desert and illimitable air,—
Lone wandering, but not lost.
All day thy wings have fanned,
At that far height, the cold, thin atmosphere,
Yet stoop not, weary, to the welcome land,
Though the dark night is near.
Thou'rt gone; the abyss of heaven
Hath swallowed up thy form; yet on my heart
Deeply hath sunk the lesson thou hast given,
And shall not soon depart.
He who, from zone to zone,
Guides through the boundless sky thy certain flight,
In the long way that I must tread alone
Will lead my steps aright.

—*Bryant.*

4. Mention some of the essentials of good articulation.
5. What purpose have you in teaching reading?
6. State your opinion, with reasons, on learning quotations from eminent writers.
7. What do you understand by a literary critic? Mention at least one.
8. What is the object of punctuation?

9 and 10.

GOOD-BYE, PROUD WORLD.

Good-bye, proud world! I'm going home;
Thou art not my friend, and I'm not thine:
Long through thy weary crowds I roam;
A river ark on the ocean brine,
Long I've been tossed like the driven foam:
But now, proud world, I'm going home.
Good-bye to Flattery's fawning face;
To Grandeur with his wise grimace;
To upstart Wealth's averted eye;
To supple Office, low and high;
To crowded halls, to court and street;
To frozen hearts and hasting feet;
To those who go, and those who come:
Good-bye, proud world, I'm going home.
I'm going to my own hearthstone,
Bosomed in yon green hills alone;
A secret lodge in a pleasant land
Whose groves the frolic fairies planned;
Where arches green the livelong day
Echo the blackbird's roundelay,
And vulgar feet have never trod

22 A spot that is sacred to thought and God.
23 Oh, when I'm safe in my sylvan home,
24 I tread on the pride of Greece and Rome;
25 And when I am stretched beneath the pines,
26 Where the evening star so holy shines,
27 I laugh at the lore and the pride of man,
28 At the sophist schools, and the learned clan;
29 For what are they all, in their high conceit,
30 When man in the bush with God may meet?

—*Emerson.*

Line 4. Explain figure.
Line 7. What figure in this line? Point out and explain other figures in the stanza.
Line 15. Give the meaning of hearthstone.
Line 23. Give meaning of sylvan home.
Line 24. What is the reference to Greece and Rome?
Lines 28 and 30. Explain meaning of sophist and bush.
Give some interesting facts about Emerson.

SCHOOL LAW.

ALL GRADES.

(Answer any five.)

1. Who are truant officers under the law?
2. Name five ways in which a school district office may become vacant.
3. (a) What is primary school money? (b) By whom is it apportioned? (c) For what purpose must it be used?
4. What reports must be made by a teacher to the director?
5. Mention one important amendment to the school law proposed in the present legislature.
6. (a) What persons constitute the school board in the township districts of the Upper Peninsula?
   (b) How are they elected, and for how long a term?
7. What powers are conferred upon such school boards?
8. Give three advantages gained by the township district organization in the Upper Peninsula.

THEORY AND ART.

ALL GRADES.

1. (a) Define Pedagogy, Psychology.
   (b) Define perception. Name the representative powers.
2. Name five of the chief requisites of a teacher.
3. Name five hygienic conditions to which the teacher should give attention in the school room.
4. State specifically the work of the sixth grade according to your course of study.
5. (a) Where is the ideal school? Why?
   (b) Name five things that will tend to cultivate the character of young pupils.

UNITED STATES HISTORY.

FIRST AND SECOND GRADES.

1. Mention five of the most important events connected with the explorations and discoveries of America, giving reasons for your answer.
2. How did the policy of the English settler differ from that of the French settler and what effect had this on the future history of our country?
3. Name five characteristics of the American people at the beginning of the Revolution that largely contributed to the successful issue of their struggle for independence.

4. What years in our national life have been marked by: (a) great inventions, (b) financial depressions?
5. How was the death of England's late sovereign noticed by the United States government?
6. Give particulars of the first great battle between ironclad ships as to: (a) location, (b) names of vessels engaged, (c) the result.
7. What were the Alabama Claims and how were they settled?
8. Name three things that should be developed in the pupil's mind by the study of history.
9. For what particular cause did each of the following great orators plead: Samuel Adams, Wendell Phillips, Daniel Webster, John C. Calhoun?
10. Mention the chief events of President McKinley's administration.

THIRD GRADE, CLASS B.

1. Name five prominent explorers, giving reasons for so considering them.
2. Give an account of the conflicting claims of the French and English to North American territory and the basis of their claims.
3. What part did the church, home, and school each play in the New England settlements and what was their influence upon the future development of the nation?
4. Tabulate four of the most important of the Thirteen Colonies in accordance with the following plan:

	FIRST SETTLED.			
Colonies.	When?	Where?	By whom?	Original government.

5. What two distinguished Americans divide the honor of framing the Declaration of Independence?
6. Describe the adoption of the United States Constitution, giving time and place of convention.
7. How could the death of Queen Victoria be made effective in the history class?
8. Write at least one sentence about each of the following: (a) the first steamboat, (b) the first telephone, (c) the Atlantic cable.
9. What three things should be developed in the pupil's mind by the study of history?
10. How are the following names associated with the expansion policy of the United States: Thomas Jefferson, John C. Fremont, Wm. H. Seward, Theodore Roosevelt?

THIRD GRADE, CLASS A.

1. Name five prominent explorers, giving reasons for so considering them.
2. How do you present the struggle of the colonies for liberty so as to impress the pupils with its importance?
3. Tabulate three of the most important of the Thirteen Colonies in accordance with the following plan:

	FIRST SETTLED.			
Colonies.	When?	Where?	By whom?	Original government.

4. How do you use such books as "Uncle Tom's Cabin" and "The Story of Liberty" in teaching history?
5. What part did the church, home, and school each play in the New England settlements and what was their influence upon the future development of the nation?
6. Name the generals of the civil war who have since been Presidents of the United States.
7. What importance do you attach to the relation of heroic deeds and the singing of patriotic songs?
8. Write at least one sentence about the following: (a) the first telephone, (b) the first steamboat, (c) the Atlantic cable.
9. How are the following names associated with the expansion policy of the United States: Thomas Jefferson, John C. Fremont, Wm. H. Seward, Theodore Roosevelt?
10. Name three American poets and three historians, mentioning a work by each.

III. QUESTIONS PREPARED BY THE SUPERINTENDENT OF PUBLIC INSTRUCTION FOR THE REGULAR EXAMINATION, JUNE, 1901.

ALGEBRA.

SECOND GRADE.

1. Define algebra, binominal, polynominal, coefficient, exponent.
2. Simplify $3x-(b-y)-\left\{3x+(2b-y)-(a-\overline{b+c})\right\}$.
3. Factor the following:
   a^4-b^4, m^2-mn, $x^2-11x+30$, $x^4-2x^2y+y^2$.
   $x^3-3x^2y+3xy^2-y^3$.
4. Find the values of each of the unknown quantities in the following:
   $x+y+z=12$.
   $x-y=2$.
   $x-z=4$.
5. A number consisting of two digits is equal to four times the sum of its digits, and if 18 be added to the number, the result will be expressed by the digits inverted. What is the number?
6. (a) Expand $(a-2x)^4$.
   (b) $\sqrt{x+5}+\sqrt{x}=5$. Solve to find value of x.
7. Two purses contain together $300. If $30 is taken from the first and put into the second, there will be the same amount in each. How much is there in each?
8. What fraction is that which will equal 1, if 1 be added to the numerator, but will equal ½ if 3 be added to the denominator?
9. (a) Multiply $a^{\frac{1}{2}}+b^{\frac{1}{2}}$ by $a^{\frac{1}{2}}+b^{\frac{1}{2}}$.
   (b) Divide a—b by $a^{\frac{1}{2}}-b^{\frac{1}{2}}$.
10. Two numbers are to each other as 3 to 5, and the sum of their squares is 3400. What are the numbers?

ARITHMETIC.

SECOND GRADE.

Mental Work.

(Write full analysis; 25 credits for this work.)

1. ⅔ is what per cent of ¾?
2. What per cent of a mile has a man traveled when he has walked along two sides of a square ten-acre field?

3. A owns ⅜ of a ship, B ⅔ as much; each sells ½ his share, A receiving $4000 more than B. What is the value of the ship?
4. Sold goods at a profit of 20% after making a reduction from the marked price of 20%. What per cent of the cost was the marked price?
5. Explain by analysis "inverting the divisor."

Written Work.

(50 credits for this work.)

1. 3 men, 4 women, or 6 boys, can pay a debt in 27 days. How many days will it take for one of each working together to pay the debt?
2. Draw a 60-day bank note which, discounted on the day drawn, at 8%, will yield $500.
3. (a) In what time will $480 amount to $524.40, at 6% simple interest?
   (b) How, and how much per cent is a person's income changed who sells U. S. 4's at $1.05 and invests the proceeds in a 6% bond at $1.10?
4. (a) Given dividend, quotient, and remainder; to find the divisor.
   (b) Given sum and difference of two numbers, to find the numbers.
5. Two men invested $1000, A's investment being to B's as 2 to 3. A's money was in the business 8 months, B's 10 months. They made a profit of $460. How much of the profit should each receive?

THIRD GRADE, BOTH CLASSES.

Mental Work.

(Write full analysis; 25 credits for this work.)

1. A can do ⅔ as much as B. If B can do a piece of work in 5 days, how long will it take A to do it?
2. Analyze an example to show why inverting the divisor and multiplying will divide by the fraction.
3. 11% of the people in a certain village moved away, leaving 1780. How many moved away?
4. Goods marked to gain 20% were marked up 20% above this price, then sold at $1.44. What did they cost?
5. What per cent of 2 quarts is ¾ of a pint?

Written Work.

CLASS B.

(50 credits for this work.)

1. Using the digits 6, 7, 8, 9, in each number, the examiner will form fifteen numbers, of which the applicants find the sum, adding but once.
2. Make out a receipted bill in proper form for 12 articles usually found in a general store.
3. What cost 5 piles of stove-wood 12 ft. long, each being 6 ft. high at one end, and 4 ft. high at the other, at $2⅜ per cord?
4. $1200 yields $44 interest in 8 mos. How much must be placed at interest at the same rate and time, to yield $100 per annum?
5. How far apart are the N. E. and S. W. corners of a section of land?

CLASS A.

(50 credits for this work.)

1. Using the digits 6, 7, 8, 9, in each number, the examiner will form fifteen numbers, of which the applicants find the sum, adding but once.
2. Make out a receipted bill in proper form for 12 articles usually found in a general store.
3. Give a method of teaching long division.

4. (a) In what grade should fractions be introduced?
   (b) How would you begin teaching them?
5. What is the essential difference in the *purpose* of first grade numbers and that of third grade numbers?

MENTAL ARITHMETIC.

(Accuracy and speed test.)

ALL GRADES.

Note.—(1) Distribute these lists among all the applicants, placing them face down upon the desks.
(2) Each applicant write his number (or name) across the back of the slip.
(3) At a signal from the Commissioner, all reverse the slips and, in *the right-hand margin*, write as many answers to the 20 questions as possible in *15 minutes.*
(4) At the second signal, all again reverse the papers, when they will be at once collected by the examiners.

Give (a) *one-fourth per cent* for each answer written. (b) One per cent additional for each *correct* answer, making 25% for this part of the examination.

1. The minuend is ½, the remainder is ¼; what is the subtrahend?
2. The quotient is ½, the divisor is 3; what is the dividend?
3. The sum of two numbers is 10, their difference is 4; what are the numbers?
4. ⅔ of 12 are how many fifths of 20?
5. At 6c for five oranges, what will two dozen cost?
6. What cost 24 cows at $24 apiece?
7. How many times is ½ contained in 5?
8. A's money is ⅔ of B's; what part of B's is A's?
9. What is the relation of ½ to 2?
10. What is the relation of ⅔ to ⅚?
11. What cost 140 acres of land at $50 per acre?
12. At $33⅓ per acre, how many acres of land can I buy for $2400?
13. How many times can 75c be subtracted from $63?
14. What is the cube root of 8×27×125?
15. 13824 is a perfect cube. What is its cube root?
16. Gained 25% by selling my horse for $100. What did it cost?
17. My watch cost 1⅓ times as much as my chain, both costing $14. What was the cost of each?
18. How many quarts in 2½ pecks?
19. The area of a circle whose radius is one inch is 3.1416 sq. in. What is the area of a circle whose radius is ½ inch?
20. How many fence-posts are necessary to inclose a square ten-acre field, posts to be one-half rod apart?

BOTANY.

SECOND GRADE.

1. Give three methods of fertilization in flowering plants.
2. With what instruments should each member of a botany class be provided?
3. Give two functions of the roots of plants.
4. What is clorophyl and what its use?
5. Explain absorption and osmose in roots and leaves.
6. Define corm, tuber, stolon, runner.
7. What is morphology?
8. Define dehiscent and indehiscent fruits.
9. Describe the legume, the capsule, a grain, a berry.
10. Define staminate flowers, symmetrical flowers, complete flowers.

CIVIL GOVERNMENT.

SECOND GRADE.

1. In case of non-election, why should the House rather than the Senate choose the president?
2. Give a reason why the office of the United States supreme judge is made permanent, while that of other offices are not.
3. When a vacancy occurs in the national senate, how is it filled?
4. What effect had the three-fifths compromise upon taxation?
5. Tell who exercises legislation over the District of Columbia and by what authority?
6. Distinguish between a pure democracy and a representative government. Why is a representative form necessary in the United States?
7. (a) What was the fundamental weakness of the Articles of Confederation?
   (b) Mention two names prominent in connection with the framing of the Constitution.
8. Tell how the presiding officers of the Michigan House and Senate are chosen, and briefly compare their powers.
9. What do you understand by tax sales?
10. State clearly the difference between anarchy and liberty.

THIRD GRADE, CLASS B.

1. (a) What is a treaty?
   (b) What power has the president over treaties?
2. What study should be closely connected with civil government? Why?
3. (a) By whom are United States senators elected?
   (b) Name the United States senators from Michigan.
4. What is meant by "right of eminent domain"? Illustrate.
5. State clearly the difference between petit and grand juries.
6. (a) Where is vested the power to establish and maintain postoffices?
   (b) How are postmasters of first and second class appointed?
7. As expressed in the preamble, what are the ends for which the Constitution was ordained?
8. Mention five powers of Congress.
9. Briefly state the duties of the judge of probate in Michigan.
10. What officer has charge of the public lands of Michigan?

CLASS A.

1. Mention at least five topics which you consider important in teaching elementary civics.
2. What study should be closely connected with civil government? Why?
3. (a) By whom are United States senators elected?
   (b) Name the United States senators from Michigan.
4. Mention some ways in which the schools may be helpful in the development of good citizenship.
5. What was the important question before the last Michigan legislature?
6. (a) What was the purpose of the fourteenth and fifteenth amendments to the Constitution?
   (b) What can you say of the violation of the same?
7. Mention five names prominent in our national affairs of today, telling in what connection important.
8. According to the Constitution, who are citizens?
9. Briefly state the duties of the judge of probate in Michigan.
10. What officer has charge of the public lands of Michigan?

GENERAL HISTORY.

SECOND GRADE.

1. Discuss briefly the taking of Constantinople by the Saracens with reference to trade between Asia and Europe.
2. Name five ancient nations and tell one important contribution each has made to civilization.
3. When was the present form of government established in France, and who is the president.
4. What were the principal causes and results of the Franco-Prussian war?
5. Give a brief account of the life and work of Gladstone.
6. Give origin and meaning of the term Anglo-Saxon.
7. Tell of the recent visit of the Cuban representatives to Washington, and the nature of their conference with the President.
8. What event occurred in Australia last month? Explain its importance.
9. What was the Renaissance? Its influence upon civilization?
10. Give one historical fact concerning each of the following: Rome, Alexander the Great, Catherine II, Charlemagne, Venice, Alps.

GEOGRAPHY.

SECOND GRADE.

1. What causes the apparent movement of the sun north and south in the heavens?
2. Name the capital, form of government, and ruler of each of the following countries: Mexico, Russia, Spain, England, Greece.
3. In what cities of Europe are found the Coliseum, Parthenon, Westminster Abbey, Vatican?
4. What is meant by eastern standard time?
5. Describe the surface of the land from the Scandinavian Peninsula to the Pacific Ocean.
6. Name the principal imports to the United States from the following countries: Brazil, Holland, Sweden, Japan.
7. Mention some geographical facts taught to children which are to serve as data for the future study of history.
8. What are the causes of volcanoes and earthquakes? Name some of the most noted volcanoes in the world.
9. Locate the Suez canal, Kiel canal, Welland canal, and state what special advantage to commerce each contributes.
10. What and where is Cape Colony, Sidney, Wales, Venezuela?

THIRD GRADE, CLASS B.

1. What is Eurasia?
2. Locate the most important ocean currents and briefly speak of the benefit of each.
3. What winds blow over Europe and where is the rainfall the lightest?
4. Name and locate two of the most important shipping ports of each of the Grand Divisions.
5. Name three railway lines that connect the Mississippi valley with the Pacific coast, giving termini of each.
6. What has climate and location to do with the occupation and physical development of man?
7. In teaching geography, should natural or political features be taught first? Give reasons for your answer.
8. How would you explain to a class the formation of glaciers?
9. What is meant by Greater New York, and how does it rank with other cities of the world?
10. Name, locate and give general direction of the principal mountain ranges of North America, South America, and Europe.

THIRD GRADE, CLASS A.

1. What is Eurasia?
2. Name three uses of mountains.
3. What are the principal productions of "Our New Possessions?"
4. Compare the advantages of the farm and city for the study of geography.
5. What uses do you make of the sand table, clay modeling, pictures, newspapers, observation lessons, etc., in teaching geography?
6. Name five counties in Michigan named for prominent men.
7. What changes will be made in our text-books on geography as a result of the Spanish-American war?
8. Sketch an imaginary trip down the Mississippi river, from its source, describing the people and scenery on either side, naming the states and largest cities passed.
9. How much do you use local geography in your teaching?
10. Name, locate, and give general direction of the principal mountain ranges of North America, South America and Europe.

GRAMMAR.

SECOND GRADE.

1. In what ways may an expression be in the nominative case? Illustrate each with a sentence.
2. Name four classes of pronouns and define each.
3. Explain the difference between the dative object and adverbial objective. Illustrate.
4. In the sentence, "The teacher knew him to be the culprit," dispose of the words *him* and *culprit* according to Reed & Kellogg, Metcalf, or Whitney & Lockwood.
5. Give two rules for the correct use of "shall" and "will."
6. Define redundant verb, relative adverb, conjunction, appositive adjective.
7. What may the subjunctive mode express, and in how many and what tenses is it used?
8. Analyze: "Let all the ends thou aim'st at be thy country's, thy God's, and Truth's."
9. What do you understand by the term, correlative connective? Explain and illustrate by sentences.
10. Prepare an outline for an essay on any of the following subjects: "Pan American Exposition," "Nature Study," "Necessity of Training Schools for Teachers," "The Rural High School."

THIRD GRADE, CLASS B.

1. Define case, complement, objective subject, etymology, analysis.
2. Name the kinds of sentences according to use.
3. Write the possessives of valley, Comenius, Mrs. Jones, brother-in-law, lady.
4. Make sentences using the verb "eat" in the following forms:
   (a) First person, plural, present, subjunctive.
   (b) Third person, singular, past perfect, indicative.
   (c) Second person, plural, present, imperative.
   (d) Third person, singular, past indicative used interrogatively.
   (e) Third person, plural, present, used negatively.
5. Give the construction of the italicized words in the following: "Come *on, boys;* let *us teach him* a lesson."
6. Write sentences containing the following: (a) A temporal clause; (b) a substantive clause; (c) a restrictive clause.
7. Explain what is meant by the "subject" of a sentence, and the "predicate" of a sentence.
8. Analyze:

   "Be still, sad heart, and cease repining;
   Behind the cloud the sun is still shining."

9-10. Write an essay on the following outlines:

The Kindergarten—

1. By whom originated.
2. Plan of work.
3. Means to be used.
4. Purpose.
5. Results desired.

THIRD GRADE, CLASS A.

1. Define language work.
2. Write possessives of men, Mrs. Smith, child, books, mountain.
3. When should we begin to teach (a) capital letters, (b) punctuation, (c) diacritics?
4. How do you teach children the agreement of subject and verb?
5. Tell what you understand by a "reproduction story," and what preparation by the pupils, you consider necessary.
6. Compare able, round, square, beautiful, merry.
7. Write sentences to show the correct use of pretty, prettily; ill, worse; nice, nicely; sweet, suite; do, did, done.
8. Analyze:

"Be still, sad heart, and cease repining;
Behind the cloud the sun is still shining."

9-10. Write an essay on the following outline:

The Kindergarten—

1. By whom originated.
2. Plan of work.
3. Means to be used.
4. Purpose.
5. Results desired.

ORTHOGRAPHY.

ALL GRADES.

Note.—These questions count 50 per cent and the list of words 50 per cent.

1. What are primitive, derivative, and compound words?
2. (a) Define accent. (b) State the difference between primary and secondary accent.
3. Illustrate use of the prefixes: de, ex, con, semi, re.
4. State some devices you have used to interest pupils in spelling.
5. Indicate the pronunciation of the following words: despicable, inquiry, haunt, acclimate, depot, program, horrid, envelope, suite, salmon.

LIST OF WORDS.

San Juan
hospital
ceiling
orchestra
Caribbean
orthoepy
recommend
singeing
Alleghany
unique
bicycle
separate
calculate
syllable
apricot
hygiene
mischievous
Appalachian
abbreviation
cereal
sacrifice
preferred
alcoholic
geysers
occurrence

Cincinnati
chocolate
phalanges
icicle
lachrymal
Massachusetts
diphthong
banana
alien
illustrate
classify
Mediterranean
legible
larynx
inspector
faucet
acceded
vehement
oasis
pageant
Presque Isle
irreparable
bronchitis
squalor
subtle

PENMANSHIP.

ALL GRADES.

Note.—This must be written with pen; 50 credits for answers, 50 credits for handwriting.

1. What work in writing would you require of first grade pupils?
2. Discuss: (a) position of the body; (b) holding pen; (c) movement.
3. State your preference, with reasons, for slant or vertical penmanship.
4. What ends should be sought in teaching penmanship?
5. What letters should be one space high?
6. Copy the following as a specimen of your handwriting:

"Many plains were once the bottom of the ocean, and have become part of the land surface of the earth by being uplifted. The great northern plains of North America and of Eurasia are examples. The central plains of North America, of South America, the Sahara in Africa, and the Caspian basin in Eurasia, are other examples."

PHYSICS.

SECOND GRADE.

1. Give the three laws of motion.
2. (a) Define dynamics, force. (b) What is the unit of force?
3. (a) What is the general law governing the use of machines? (b) Name the so called mechanical powers.
4. (a) What power is necessary to roll a weight of 250 lbs. up an inclined plane 12 ft. long and 3½ ft. high?
   (b) A power of 150 lbs. is applied to a system of three movable pulleys. What weight can be balanced or raised?
5. Define cohesion, adhesion. What is meant by surface tension?
6. (a) Describe the barometer. (b) What does a falling barometer indicate?
7. What is a sonometer? Give two laws for the vibration of cords.
8. Explain conduction, convection, and radiation of heat.
9. Define magnetism, induction, electro magnet, galvanometer.
10. (a) Describe the working of the telephone.
    (b) We have an E. M. F. of 2000 volts, an internal resistance of 50 ohms, and an external resistance of 200 ohms. What current strength is produced?

PHYSIOLOGY.

SECOND GRADE.

1. Briefly state the function of the different parts of the blood. Which part of the blood never leaves the circulatory organs?
2. Explain the action of each of the following: saliva, bile, gastric juice, perspiration, synovial fluid.
3. Mention some apparatus which you consider necessary in the study of physiology. Give reasons.
4. Briefly explain the mechanism of the spinal column.
5. Outline a lesson on the ear suitable for sixth grade work.
6. According to the State Board of Health, what are the two principal methods by which the spread of diphtheria is prevented?
7. (a) What is meant by saying we have two brains?
   (b) What part of the brain is the center of intelligence?
8. Name the three kinds of joints and give an example of each.
9. What would you do to restore a person suffering from asphyxia produced by drowning?
10. Enumerate all the parts of the body concerned in respiration. Explain in order all that happens during inspiration; during expiration.

THIRD GRADE, CLASS B.

1. Why are the bones of children not readily fractured, while the contrary is true regarding those of adults?
2. Tell what you understand by "rickets," and mention some remedy for the same.
3. Speak briefly of the physiological effects of hot and cold baths.
4. How is the system of the growing boy affected by smoking cigarettes?
5. Give directions for ventilating the school-room so that pupils will not be in a draught.
6. Make a drawing of the eye indicating the parts.
7. (a) What parts of the body are concerned in the production of the voice?
   (b) Upon what does the pitch of the voice depend?
8. State your opinion, with reasons, of the value of physical culture in the schools.
9. Of what use are the following nerves: olfactory, optic, auditory?
10. Why is the ear often affected by sore throat?

CLASS A.

1. Why are the bones of children not readily fractured, while the contrary is true regarding those of adults?
2. Mention the topics you teach in connection with the teeth and nails.
3. Speak briefly of the physiological effects of hot and cold baths.
4. Why are coffee and tea considered especially injurious to children?
5. Give directions for ventilating the school-room so that pupils will not be in a draught.
6. What organs are especially affected in each of the following: pleurisy, consumption, bilious attack, fainting, pneumonia?
7. (a) What parts of the body are concerned in the production of the voice?
   (b) Upon what does the pitch of the voice depend?
8. State your opinion, with reasons, of the value of physical culture in the schools.
9. Write ten or fifteen lines on the form and amount of exercise required to keep the body in health.
10. Why is the ear often affected by sore throat?

READING.

ALL GRADES.

1. Mention some points which you emphasize in teaching reading.
2. What effect should reading have upon the imagination?
3. Would you correct the pupil while reading or at the close of the selection? Why?
4. Name one of our most noted poets and mention at least two of his works.
5. Mention some devices which you have found helpful in correcting the following common faults in reading: indistinctness, hesitation, lack of animation.

Note.—No oral reading required.

6.

In the Acadian land, on the shores of the Basin of Minas,
Distant, secluded, still, the little village of Grand Pré
Lay in the fruitful valley. Vast meadows stretched to the eastward,
Giving the village its name, and pasture to flocks without number.
Dikes that the hands of the farmers had raised with labor incessant,
Shut out the turbulent tides; but at stated seasons the flood gates
Opened, and welcomed the sea to wander at will o'er the meadows.
West and south there were fields of flax, and orchards and cornfields
Spreading afar and unfenced o'er the plain; and away to the northward
Blomidon rose, and the forests old, and aloft on the mountains
Sea-fogs pitched their tents, and mists from the mighty Atlantic
Looked on the happy valley, but ne'er from their station descended.
There in the midst of its farms, reposed the Acadian village.
Strongly built were the houses, with frames of oak and of chestnut,
Such as the peasants of Normandy built in the reign of the Henries.
Thatched were the roofs, with dormer-windows; and gables projecting

17 Over the basement below protected and shaded the doorway.
18 There in the tranquil evenings of summer, when brightly the sunset
19 Lighted the village street, and gilded the vanes on the chimneys,
20 Matrons and maidens sat in snow-white caps and in kirtles
21 Scarlet and blue and green, with distaffs spinning the golden
22 Flax for the gossiping looms, whose noisy shuttles within doors
23 Mingled their sound with the whir of the wheels and the songs of the maidens.
24 Solemnly down the street came the parish priest, and the children
25 Paused in their play to kiss the hand he extended to bless them.
26 Reverend walked he among them; and up rose matrons and maidens,
27 Hailing his slow approach with words of affectionate welcome.
28 Then came the laborers home from the field, and serenely the sun sank
29 Down to his rest, and twilight prevailed. Anon from the belfry
30 Softly the Angelus sounded, and over the roofs of the village
31 Columns of pale blue smoke, like clouds of incense ascending,
32 Rose from a hundred hearths, the homes of peace and contentment.

Line 1. Locate Basin of Minas.
Line 2. Give meaning of Grand Pré.
Line 3. Give tense of *lay* and principal parts of same.
Line 4. What is the meaning of *dikes?* What country is recalled by this word?
Line 6. Explain the figure *flood gates.*
Line 11. What figures in this line? Explain.
Line 12. Give meaning of this line.
Line 15. Why this reference to Normandy? Locate Normandy.
Line 16. Meaning of *thatched* and *dormer.*
Line 22. What is meant by "gossiping looms"?
Line 23. What is the force of *whir* in this line?
Line 30. What is the *Angelus?*
Line 31. Give meaning of *clouds* of *incense.*

7. From what is the above selection taken?
8. Give name of author.
9. What is the essential point to be taught in the poem?
10. Describe the picture presented by this selection.

SCHOOL LAW.

ALL GRADES.

(Answer any five.)

1. (a) Who constitute the township board of school inspectors? (b) Name three duties devolving upon this board.
2. Name six powers of the qualified voters in an annual school meeting.
3. Who are eligible for school officers?
4. (a) With whom may a school board make a contract for teaching?
   (b) Who are "qualified" teachers?
5. How may a school officer be removed from office?
6. Who is the custodian of a district library?
7. Give any disadvantages or evils that result from the organization of township districts in the Upper Peninsula.
8. In the township districts of the Upper Peninsula, how is the money raised for the support of the schools?

THEORY AND ART.

ALL GRADES.

1. Define memory, judgment, imagination.
2. Is there any danger in cultivating the imagination of the child? If so, how may teachers avoid it?
3. Give three "laws of association" by means of which the memory is assisted.
4. Why are memory gems valuable?

5. Are "concert recitations" ever allowable? Why?
6. Give three valuable "points" for the teacher to keep in mind when conducting a recitation.
7. Give three exercises that may be used for recreation or amusement on stormy days.
8. What is meant by the maxim, "Proceed from the known to the unknown."

UNITED STATES HISTORY.

SECOND GRADE.

1. Name two important effects of the discovery of the New World upon Europe.
2. State two important facts that were verified by Magellan's expedition.
3. Give a brief history of the United States Bank.
4. What is a protective tariff? A tariff for revenue only? When and how did the tariff question seriously threaten the Union?
5. Tell of the acquisition of Alaska and explain the Alaska boundary dispute.
6. "True patriotism must be based upon intelligence." Show how the study of literature may promote true patriotism, naming five selections that may be used to this end.
7. What is the "Platt Amendment?"
8. When and where will the Pan-American Congress assemble and for what purpose?
9. Write of the Pan-American Exposition: Place, time, purpose.
10. Write not less than ten lines on the life and career of Gen. Benjamin Harrison.

THIRD GRADE, CLASS B.

1. Name the most important wars that have occurred between the United States and foreign countries, and the causes that led to each.
2. State the motives that prompted the early settlers of the following colonies to leave their European homes: Massachusetts, Pennsylvania, Maryland, Virginia, Georgia.
3. Give a brief account of the people who originated our Thanksgiving service.
4. Name one invention that has had an influence upon the commercial progress of the United States. Explain fully.
5. Name three prominent men connected with the adoption of the Constitution.
6. Of President McKinley's recent trip, tell where and why it was made.
7. What is the purpose of the Pan-American Congress?
8. Give three important topics that were considered by our government during the reconstruction period.
9. Tell the story of the sinking of the Merrimac at the entrance of Santiago harbor.
10. Mention one fact or event connected with each of the following: Venezuela, Manchuri, Funston, Australia, J. P. Morgan.

THIRD GRADE, CLASS A.

1. Tell of the discoveries of Henry Hudson, and what nation was especially concerned?
2. Give an account of the Plymouth Company.
3. What was the cause of Bacon's Rebellion.
4. Give an account of the settlement of Maryland.
5. Tell the story of the "Charter Oak," as to a primary class.
6. Locate Fort DuQuesne, the Plains of Abraham, and New Amsterdam, mentioning an important fact regarding each.
7. What importance do you attach to the use of biographies in primary history teaching? Name five selections you would use.
8. Name five stories of American history that you consider helpful in your class.
9. State the principal terms of the late Spanish-American treaty.
10. Tell the story of "Paul Revere's ride," as to a primary class.

IV. QUESTIONS PREPARED BY THE SUPERINTENDENT OF PUBLIC INSTRUCTION FOR THE REGULAR EXAMINATION, AUGUST, 1901.

ALGEBRA.

FIRST GRADE.

1. Factor $a^2 - b^2 - (a - b)^2$; $abc + acd + bd + a^2 c^2$; $x^2 z^2 + a x^2 - a^2 z^2 - a^3$.
2. Name, define, and illustrate the different kinds of equations.
3. Expand $(c^{\frac{5}{6}} + x^{\frac{5}{6}})^2$; $(x^{\frac{3}{4}} + y^{-\frac{3}{4}})(x^{\frac{3}{4}} - y^{-\frac{3}{4}})$
4. (a) Express with a rational denominator the following fraction:

$$\frac{\sqrt{a+3} - \sqrt{a}}{\sqrt{a+3} + \sqrt{a}}.$$

(b) Find the approximate value of $\frac{4}{\sqrt{3} + \sqrt{2}}$.

5. (a) Give the typical equations used, and its roots, in the discussion of quadratic equations.
(b) When is the first root positive and the second negative?
6. Find the values of v, x, y, and z in the following:

$$\begin{cases} x + y = a + b. \\ y + z = b + c. \\ z + v = a - b. \\ v + x = c - b. \end{cases}$$

7. Two persons started at the same time and traveled toward a place 90 miles distant. A traveled one mile an hour faster than B, and reached the place an hour before him. At what rate did each travel?
8. Find two quantities whose sum, product, and difference of their squares are all equal.
9. A man loaned two sums of money at a rate equal to the number of hundreds represented by the first sum. His income from this was $96. If he had loaned them at a rate represented by the number of hundreds in the other sum, his income would have been increased $64. Find the sums loaned.
10. (a) The product of four numbers in arithmetical progression is 280, and the sum of their squares is 166. What are the numbers?
(b) State a problem the solution of which would involve the following equations:
$2x+5y=132.$
$3x+4y=114.$
Solve the problem.

Note.—Answer "a or b."

SECOND GRADE.

1. Define transposition, verification, binomial, equation, exponent.
2. (a) Give three important axioms of algebra.
(b) How do a rule and a formula differ?
3. Illustrate three cases of factoring that you consider important.
4. Reduce the following to simplest form:

$$(x^2 \div \tfrac{1}{x}) \div (1 + \tfrac{1}{x}).$$

5. Divide 735 among three persons so that the second will have ¾ as much as the first, and the third ½ as much as the other two together.
6. The difference between two numbers is 25, and the greater is to the less as 3 to 2. What are the numbers?

7. $\left\{\begin{matrix} x + 2y = 20 \\ x - 3y = -10 \end{matrix}\right\}$ Find the value of x.
8. The sum of two numbers is 343 and their difference is 49. What are the numbers?
9. The sum of two numbers is 72, and their product is ten times as great. What are the numbers?
10. The difference of two numbers is 7, and the difference of their squares is 119. What are the numbers?

ARITHMETIC.

FIRST AND SECOND GRADES.

Mental Work.

(Second grade applicants write full analysis of first five; first grade applicants of last five. 25 credits for this work.)

1. 2½ times ⅔=? Explain solution as to a class.
2. I sold a horse for $72, gaining ⅔ the cost. Paid for him with coal at $5 a ton. How many tons did it take?
3. A man builds a fence in 4½ days; what part will he build in 3 days?
4. If 10 horses eat 75 bushels of oats in 3 weeks, in what time would they eat 200 bushels?
5. The cost of polishing five faces of a cubical block of granite, at 80 cents a square foot, was $36.00. What was the length of one edge?
6. A, B, and C together earned $100. A's share was ⅞ of B's, and C's ⅛ more than B's. How much did each earn?
7. A is 21 years older than B; B's age is $\frac{5}{12}$ of A's. How old is each?
8. Sold a piano at a gain of 20%. Had it cost $250 more, I should have lost 20%. What did I receive for it?

Written Work.

(Second grade applicants solve the first five; first grade applicants the last five. 50 credits for this work.)

1. Name principles involved in the following:
   (a) "Carrying" in addition.
   (b) "Borrowing" in subtraction.
   (c) Reducing fractions to common denominator.
   (d) Pointing off in division of decimals.
   (e) Finding two numbers when their sum and difference are given.
2. Divide a section of land between four persons in the ratio of the first four odd digits.
3. (a) Give the rules for precedence of signs.
   (b) Explain why an exact divisor of two numbers is an exact divisor of their sums and difference.
4. A rope 510 ft. long was broken in such a manner that ⅔ of the shorter piece equalled ¾ of the longer. What was the length of each piece?
5. A sphere six inches in diameter weighs ⅛ as much as another sphere of the same material. What is the diameter of the second?
6. Find the inside surface, excepting the top, of a cubical cistern that will hold 100 bbls.
7. A engaged in business for three years, adding each year the profits of the preceding year. His profits for each year were 25%, 30%, and 10% respectively; his capital at the end of the third year was $2,145. How much had he at first?
8. A man agreed to work a year for $216 and a suit of clothes. He left at the end of 10 months, receiving $175 and the suit of clothes. What was the value of the suit?

Mental Work.

THIRD GRADE, BOTH CLASSES.

(Write a full analysis; 25 credits for this work.)

1. $\frac{2}{3}$ of a pound of tea is worth $2\frac{1}{2}$ pounds of coffee, and 3 pounds of coffee are worth 60 cents. What are 5 pounds of tea worth?
2. Lost $\frac{2}{3}$ of my money, but found $\frac{2}{3}$ of what I lost, I then deposited all that I had in a bank, receiving a certificate of deposit for $70. How much had I at first?
3. A steeple 90 ft. high casts a shadow 100 ft. How high is the steeple that casts a shadow 125 feet?
4. Explain as to a class the solution of $\frac{3}{4} \div \frac{5}{8}$.
5. 12 is $\frac{3}{10}$ of what number?

Written Work.

CLASS B.

(50 credits for this work.)

1. (a) Name the first eight periods in numeration.
   (b) Write a number having 20 in the eighth period, 40 in the sixth, 25 in the first, and then write the number in words, punctuating properly.
2. What checks, or proofs would you teach in the following:
   (a) addition.
   (b) subtraction.
   (c) multiplication.
   (d) division.
3. (a) How many days from the date of this examination to next Decoration day?
   (b) Mr. B. worked 6 days each week for 44 weeks of the year. What per cent of the time was he idle, if 300 working days make a year?
4. Find the interest, at the legal rate, on $200 from December 13, 1896, to the date of this examination.

Note.—Examiner should give the legal rate to such as do not know it, making a slight deduction from the standing for the same.

5. Make out a bill in proper form of the following, carrying out the amounts of each item and finding the total amount of the bill: On July 1, 1901, I bought of Clarke & Co., at $16 per M., 25 boards 14 ft. long, 8 inches wide; 14 2x4 scantling, 16 ft. long; timbers, 8x12, 30 ft. long.

CLASS A.

(50 credits for this work.)

1. (a) Name the first eight periods in numeration.
   (b) Write a number having 20 in the eighth period, 40 in the sixth, 25 in the first, and then write the number in words, punctuating properly.
2. What checks, or proofs would you teach in the following:
   (a) addition.
   (b) subtraction.
   (c) multiplication.
   (d) division.
3. Discuss the following: "The first lessons in primary numbers should be given orally."
4. Explain as to a class "ten-fold ratio."
5. Make a general classification of numbers in the first three grades, according to the State Manual and Course of Study; or outline a lesson in third grade numbers.

MENTAL ARITHMETIC.

(Accuracy and speed test.)

ALL GRADES.

Note.—(1) Distribute these lists among all the applicants, placing them face down upon the desks.
(2) Each applicant write his number (or name) across the back of the list.
(3) At a signal from the Commissioner, all reverse the papers and, in *the right-hand margin*, write as many answers to the 20 questions as possible in *15 minutes*.
(4) At the second signal, all again reverse the papers, when they will at once be collected by the examiners.

Give (a) *one-fourth per cent* for each answer written. (b) *One per cent* additional for each *correct* answer, making 25% for this part of the examination.

1. Add ½, ¾, 2, 5, ⅛.
2. From 12 take 2⅞.
3. From the sum of 6½ and 2½ take their difference.
4. Find the product of 144 and 25.
5. 2,700×33⅓=?
6. 64×75=?
7. 25^2=?
8. 36×66⅔=?
9. What is 25% of 75?
10. 16 is 12½% of what?
11. Paid $25 for wheat at 80 cents a bushel. How many bushels did I buy?
12. A man earns $18 in 11 days; how much can he earn in 5½ days?
13. Sold 10 cows, then bought 12, after which I had 14. How many had I at first?
14. 12 is ¾ of ½ of what number?
15. What cost 2 dozen spoons at $2½ each?
16. Paid $18¾ for 5 pairs of shoes. What was the cost per pair?
17. Lost 16⅔% in selling my horse for $90. What did it cost me?
18. How many acres of land at $12½ can I buy for $600?
19. 1½ pints is what per cent of 3 quarts?
20. Find the cube root of 27×8×125.

BOTANY.

FIRST GRADE.

1. Define cotyledon, caulicle, root-hair, systematic botany, economic botany.
2. Give the chemical changes involved in the process of germination.
3. Explain what is meant by aerial plants, and name three.
4. Tell, in detail, what happens in the leaves of a plant during the day; during the night.
5. What is the function of the roots? Where is mineral matter made a part of the living matter?
6. Name four forms of the stem.
7. How may we know from a cross section of a stem whether the plant is exogenous or endogenous?
8. What name is applied to the flower clusters of the following: clover, milkweed, currant, trillium, mallow?
9. Define the terms hypogynous, perigenous, monadelphous, filament, stigma.
10. (a) Name ten wild flowers that grow in your locality.
    (b) Describe botanically any *one* of them.

SECOND GRADE.

1. Name the parts of a complete flower.
2. Name three plants that belong to the lily family.
3. Define the terms epipetalous, adnate stamens, pollen, gamopetalous, corolla.

4. When are flowers said to be perfect?
5. Describe the seed or fruit of the basswood, maple, oak, raspberry, burdock.
6. Give a botanical description of the plum blossom.
7. Define the panicle, cyme, umbel, raceme, spike.
8. Describe the circulation of a plant.
9. Name four forms of roots.
10. Name ten varieties of forest trees common in Michigan, and underscore the ones that are used in manufacturing.

CIVIL GOVERNMENT.

FIRST AND SECOND GRADES.

1. (a) How are disputes between states settled?
   (b) Briefly state how the Constitution may be amended.
2. (a) Explain the meaning of electoral votes and the process of counting them.
   (b) How is the number of presidential electors determined?
3. What was the basis of the claims recently paid the United States by Turkey?
4. Give a brief account of the District of Columbia, with reference to organization and government.
5. (a) What is meant by tariff for revenue only, reciprocity, free trade?
   (b) Who was the prominent advocate of reciprocity?
6. What is the 13th amendment to the Constitution? What other amendments were made necessary? Why?
7. Compare the supreme court of Michigan with that of the United States as to number of judges, method of choice, term of office, and jurisdiction.
8. What are the sources of school funds in Michigan?
9. Give time of election and term of office of the following: county clerk, members of state board of education, auditor general, commissioner of schools, and state treasurer.
10. (a) What do you understand by the "committee of the whole" in a legislative body?
    (b) What is the length of term for an extra session of the legislature?

THIRD GRADE, CLASS B.

1. Name some objects to be attained in teaching civil government.
2. State the difference between civil and political privileges, and tell whether all citizens enjoy both.
3. State explicitly the emergency in which the governor of a state appoints a man to serve in United States senate?
4. How is the appointing power of the president controlled? To whom is the president responsible?
5. What is the importance of the position of Speaker of the House?
6. (a) What is meant by the constitution of a country?
   (b) Of what force is a law that is contrary to the constitution?
7. Name three national party leaders and two leaders in Michigan.
8. (a) Why should not the postal system be committed to the states?
   (b) What official supervises the postoffice department?
9. Briefly give the process of law-making in Michigan.
10. (a) By what power is war declared?
    (b) What is meant by "contraband of war?"

CLASS A.

1. Name some objects to be attained in teaching civil government.
2. State the difference between civil and political privileges, and tell whether all citizens enjoy both.
3. State explicity the emergency in which the governor of a state appoints a man to serve in the United States senate?
4. What is the present policy of the government regarding domestic manufactures?
5. What are the three departments of city government?
6. (a) What is the object of Flag Day?
   (b) Mention any other days having similar significance.

7. Name three national party leaders and two leaders in Michigan.
8. Define majority, plurality, and quorum.
9. State difference between the duties of the probate and circuit judge.
10. (a) By what power is war declared?
(b) What is meant by "contraband of war?"

GENERAL HISTORY.

FIRST GRADE.

1-2. Discuss the influence of ancient Greece upon the present civilization.
3. Name ten of the world's decisive battles, and give an account of one of them.
4. "The Charge of the Light Brigade." Give brief account of the war in which this occurred, including causes and results.
5. Give account of the Magna Charta and trace its idea as shown by later historical events.
6. "Cæsar had his Brutus, Charles I, his Cromwell—."
Explain the above quotation; when used, and by whom?
7-8. Sketch the life of Gladstone. What is his greatest contribution to the present generation?
9. Mention five prominent historical characters, stating what made each prominent.
10. Give brief account of the recent Boxer movement.

SECOND GRADE.

1. What is "general history?"
2. What particular portions of general history do you find most helpful in the study of United States history?
3. Sketch briefly the life of one of the following: Gustavus Adolphus, Louis XIV., Julius Cæsar.
4. Name three men of Ancient Greece, three of Rome.
5. What nations can you name that are illustrations of the statement, "Luxury and ease are the seeds of effeminacy."
6. (a) What is the title of the present ruler of England?
(b) Trace the title and name back as far as you can.
7. In what European wars were the American colonies involved?
8. Give brief account of one of them.
9-10. Give outline of Napoleon's career.

GEOGRAPHY.

FIRST AND SECOND GRADES.

1. Define erosion, detritus, drift, dunes.
2. What evidences of glacial action do we find in the region of the great lakes.
3. Explain ocean tides.
4. Define tundras, llanos, prairie, flood plains.
5. (a) Locate four regions where petroleum is found in abundance. (b) Name four commercial products made from petroleum.
6. Give reasons for the location of the following cities: Quebec, New York, London, New Orleans, Calcutta.
7. What changes have taken place in the geography of Africa in the last ten years?
8. What is your aim in teaching geography?
9. (a) Name six seaports that are important from a military standpoint.
(b) What cities of the United States are on the same parallel of latitude as Jerusalem?
10. Locate Port Arthur, Guam, Galveston, Delagoa Bay, Dawson City, Jacksonville, and give a recent event connected with each.

THIRD GRADE, CLASS B.

1. Name the capital of each of the following: Corea, Cape Colony, Sweden, Australia, Oklahoma.

2. Define glacier, river system, delta, rock fold.
3. What is the prevailing wind of Michigan and what effects are produced by it?
4. Name ten articles of manufacture produced in Michigan.
5. Why are the tropics located 23½° from the equator?
6. What uses do you make of the globe in teaching geography?
7. Name ten products of the United States that find markets abroad.
8. Locate the great oil fields of Texas and Russia.
9. Upon what plan do you teach the location of cities in a state or a country?
10. (a) Name the important productions of Argentina.
    (b) How does Chili compare with Michigan in area?

CLASS A.

1. How do you apply the maxim—"Proceed from the known to the unknown" in teaching geography?
2. What is meant by "reading a map"?
3. What is meant by the "journey method" in geography?
4. What do you use as the basis for the child's concepts of a mountain, a city, an ocean, a peninsula, a plain, a valley, a continent?
5. Name the counties of Michigan bordering on Lake Michigan.
6. Locate Marquette, Sault Ste. Marie, Singapore, Cape Matapan, Vladivostock.
7. Name the productions of Germany that compete with those of the United States.
8. How do you teach your pupils to describe a river?
9. Name ten important cities of Europe and tell why you consider them important.
10. Draw a map of Michigan, locating five rivers, five cities, the salt regions, the coal regions, the copper regions.

GEOMETRY.

FIRST GRADE.

1. Discuss the teaching of geometry in different grades.
2. (a) Give steps in the demonstration of a theorem in geometry.
   (b) Give steps in the solution of a problem in geometric construction.
3. Give what you consider to be the *three* fundamental theorems of plane geometry.
4. Give two demonstrations and two applications of the Pythagorean Theorem.
5. The perpendicular bisectors of the sides of a triangle meet in a point, i. e., are concurrent. Demonstrate.
6. The medians of a triangle meet at a trisection point of each.
7. The square described upon the sum of two lines equals the sum of the squares described upon the lines, plus twice the rectangle of the lines. Demonstrate.
8-9. Construct by line-segments an octagon and a second one one-half as large, giving method of procedure.
10. My house and barn are upon the same side of the road but at unequal distances from it. I wish to so locate a well upon the road that I can build the shortest possible walk from the house to the barn, touching the road at the well. Show how you would locate the well.

GRAMMAR.

FIRST AND SECOND GRADES.

1. (a) Name the parts of grammar, and define each.
   (b) Upon which do you place most stress, and why?
2. Discuss the use of the forms mine, yours, ours, theirs in such expressions as, "My hat is new, yours is old." "The money is ours."
3. Give four expressions or groups of words that may be used as substitutes for the adjective.
4. How can you determine when to use the subjunctive mode and when the indicative?
5. Define verb phrase, conjunctive adverb, notional verb, objective complement.
6. (a) Define co-ordinate conjunctions, and give the four classes.
   (b) Write a sentence to illustrate each.
7. Explain the concord of tenses. Define periodic and loose sentences.

8. Analyze: Being commanded to make ready for battle, the officer replied, "I know when to go." Give two authorities.
9. (a) Name four works on grammar with which you are familiar.
   (b) How do those authorities treat the participle in its various uses?
10. Give construction of the italicized words in the following sentence: The old mansion *with the sign*, "house *to let*," was sufficient *cause to recall* past friendships and make *me laugh* at the mistakes and fears of *my* youth.

THIRD GRADE, CLASS B.

1. Name the kinds of sentences according to form.
2. Upon what do grammarians base their authority?
3. Define subjunctive mode, predicate adjective, conjugation, infinitive, case.
4. (a) Compare noble, late, finely, square, rapidly.
   (b) Define comparison.
5. Make sentences containing the verb *see* in the following forms:
   (a) Third person, plural, past, subjunctive.
   (b) First person, singular, present perfect, indicative, active voice.
   (c) Second person, plural, past, progressive.
   (d) Third person, singular, past perfect, used negatively.
   (e) Second person, plural, present, imperative.
6. Give construction of the italicized words in the sentence: We called *him* a *genius*, *only* to *see* him become *inflated* with the idea of his *greatness* and *look down* upon us with disdain.
7. Name the different kinds of complements.
8. Name the different kinds of clauses and give examples of each.
9. What is your aim in teaching grammar?
10. Conjugate the verb fly in the following tenses: present perfect, past, future indicative, the present and past subjunctive.

CLASS A.

1. Name the kinds of sentences according to form.
2. Compare noble, less, best, beautiful, bad.
3. Write sentences to show the correct use of nice, nicely; bad, badly; fly, flowed, flown; have seen, saw; seal, ceil.
4. If a text-book is found in the fourth grade, what is its proper use? (b) What material is proper for supplementary language work in this grade?
5. Which kind of reproductive stories should be required first, oral or written? Why?
6. In general, we find children have a very small vocabulary of adjectives and adverbs. By what means do you seek to correct this?
7. Name the different kinds of complements.
8. Name the different kinds of clauses and give examples of each.
9. Conjugate the verb *eat* in the following tenses: present, present perfect, past, future, present subjunctive.
10. What is your aim in teaching language?

ORTHOGRAPHY.

ALL GRADES.

Note.—These questions count 50 per cent and the list of words 50 per cent.

1. Give rules that govern the spelling of the following derivatives: wealthiest, beginning, baking, singeing, singing.
2. Write five pairs of words whose pronunciation is the same but the spelling of which is different. What are such words called?
3. Mark the following diacritically: jaunt, deficit, Caucasian, calliope, coadjutor, orchestral, extant, hymeneal, jugular, isolated.
4. Analyze the following words, giving the significance in each case of the suffix, prefix, and stem: impartial, illegible, factory, bicycle, unrighteousness.
5. State some devices you would use to interest pupils in spelling.

LIST OF WORDS.

hospital	parasol
sacrifice	icicle
rheumatism	vertebra
Missouri	molasses
affinity	plausible
Chickamagua	calico
engagement	Eustachian
apricot	lacerate
acclimate	mortar
bronchitis	compelled
Cincinnati	radical
annihilate	legend
disappoint	mortgage
hiccough	counterfeit
knead	infidel
recommend	reversible
dissipate	tabernacle
suite	Sault Ste. Marie
Massachusetts	difference
secede	thermometer
Shiawassee	doxology
parallel	clavicle
abbreviations	remitted
demonstrate	gratitude
advertisement	acclamation

PENMANSHIP.

ALL GRADES.

1. (a) What value do you place upon the printed copy?
   (b) What use do you make of the blackboard while conducting a writing exercise?
2. To what three particular things do you give most attention in teaching writing?
3. Mention three ordinary causes of poor penmanship in school.

Note.—30 credits for answers; 70 credits for handwriting.

PHYSICS.

FIRST GRADE.

1. Define weight, mechanics, momentum, acceleration, erg.
2. What is the atomic theory?
3. Draw figure and explain the siphon.
4. (a) Explain the difference between noise and music.
   (b) A cord 80 cm. in length vibrates 160 times per second. What must be the length of a similar cord stretched with the same tension to vibrate 256 times per second?
5. What is meant by absolute zero? Change 85° Fahrenheit to Centigrade.
6. Define radiation of heat and give three laws of radiation.
7. (a) Explain the Leyden jar.
   (b) Define the gravity cell.
   (c) Define E. M. F., resistance, current, and name the unit of each.
8. Define a dynamo and explain the parts called the commutator, the armature, the field magnet.
9. Draw figure and explain the action of the concave mirror on light. Define conjugate foci.
10. (a) Explain by a figure the path of a ray of light through a convex lens.
    (b) Explain by a figure the compound microscope.

SECOND GRADE.

1. Define center of gravity, and explain the three states of equilibrium.
2. A body weighs 2,500 pounds at level of the sea. What will it weigh one hundred miles above the surface of the sea?
3. (a) Give laws of falling bodies.
   (b) How far will a body fall during the 5th second?
4. In a hydraulic press the lever tube has an area of ¾ sq. in. and the piston tube an area of 100 sq. in. What pressure will be exerted by a weight of 50 lb. on the lever?
5. Draw figure and explain action of the force pump.
6. (a) What is meant by interference of sound waves?
   (b) The report of a gun was heard 3 seconds after the flash was seen. How far distant was the observer?
7. Describe a thermometer. What is the difference between the Centigrade and Fahrenheit thermometers?
8. If cold contracts, why when a pail of water freezes solid does it generally burst the pail?
9. What is meant by latent heat? What do you understand by static electricity?
10. By figure, show the path of a ray of light through a concave lens and explain.

PHYSIOLOGY.

FIRST AND SECOND GRADES.

1. Speak briefly of the relative educational value of specimens, illustrations, and text-books.
2. Mention at least one exercise you would give class for practical work.
3. How is food taken up by the body?
4. By diagram, briefly describe the course of the blood in the systemic circulation.
5. Make an outline for study of the anatomy of the eye suitable for seventh and eighth grade work.
6. Mention some of the properties of vegetables, fruit, and meat.
7. Make drawings of the digestive tube, or organs, naming the parts.
8. Explain effect of each digestive fluid.
9. (a) What is a poison?
   (b) Name some antidote for acid poison.
10. State number and functions of the cranial nerves.

THIRD GRADE, CLASS B.

1. Distinguish between anatomy, physiology, and hygiene.
2. Trace a particle of food through the various stages of digestion.
3. Tell what organs occupy the abdomen and what is their relative position.
4. Write fifty words on the importance of proper methods of cooking.
5. (a) State the effect of alcohol upon the nervous system.
   (b) Explain the unnatural thirst of intemperate persons.
6. (a) If the schoolroom is not properly constructed, what means should be taken to secure good ventilation in cold weather?
   (b) What is the normal temperature to be maintained in the schoolroom?
7. State the action of the saliva upon the food.
8. (a) Briefly state the importance of the daily bath.
   (b) Why should a bath not be taken immediately before nor after eating?
9. Give the physiological explanation of hearing.
10. Give directions for the treatment of a person rescued from drowning; also for one suffering from sunstroke.

CLASS A.

1. Distinguish between anatomy, physiology, and hygiene.
2. Write a simple menu suitable for children, stating reasons for selections of food.
3. Give the structure of the teeth and some directions for the care of same.
4. Write fifty words on the importance of proper methods of cooking.
5. State the harmful effects of cigarette smoking.

6. Why should we breathe through the nose rather than through the mouth?
7. Name and locate the principal execretory organs.
8. (a) Briefly state the importance of the daily bath.
   (b) Why should a bath not be taken immediately before nor after eating?
9. In the bulletin issued by the State Board of Health, what directions are given for restricting typhoid fever?
10. Write an outline on "Our Body," suitable for primary grades.

READING.

ALL GRADES.

1. Why should fragments of selections, without literary idea, not be used in schools?
2. Mention topics which should be included in the reading work of beginners, telling why.
3. Mention three purposes you would emphasize in teaching reading.
4. What figures of speech would you teach in the 7th and 8th grades? Define two of them.
5. Give some short articulation drill.
6. Give three quotations from American authors. Name author.
7.

ENOCH ARDEN.

Long lines of cliff breaking have left a chasm,
And in the chasm are foam and yellow sands;
Beyond, red roofs about a narrow wharf
In cluster; then a moulder'd church; and higher
A long street climbs to one tall-tower'd mill;
And high in heaven behind it a gray down
With Danish barrows; and a hazelwood,
By autumn nutters haunted, flourishes
Green in a cuplike hollow of the down.

Here on this beach a hundred years ago,
Three children of three houses, Annie Lee,
The prettiest little damsel in the port,
And Philip Ray, the miller's only son,
And Enoch Arden, a rough sailor's lad
Made orphan by a winter shipwreck, play'd
Among the waste and lumber of the shore,
Hard coils of cordage, swarthy fishing nets,
Anchorage of rusty fluke, and boats updrawn;
And built their castles of dissolving sand
To watch them overflow'd, or following up
And flying the white breaker, daily left
The little footprint daily wash'd away.

A narrow cave ran in beneath the cliff:
In this the children played at keeping house.
Enoch was host one day, Philip the next,
While Annie still was mistress; but at times
Enoch would hold possession for a week:
'This is my house and this my little wife.'
'Mine, too,' said Philip. 'Turn and turn about;'
When, if they quarrel'd, Enoch stronger-made
Would master: then would Philip, his blue eyes
All flooded with the helpless wrath of tears,
Shriek out, 'I hate you Enoch;' and at this
The little wife would weep for company,
And pray them not to quarrel for her sake,
And say she would be little wife to both.

But when the dawn of rosy childhood passed
And the new warmth of life's ascending sun
Was felt by either, either fix'd his heart
On that one girl: and Enoch spoke his love
But Philip loved in silence; and the girl
Seem'd kinder unto Philip than to him;
But she loved Enoch; tho' she knew it not,
And would if ask'd deny it. Enoch set
A purpose evermore before his eyes,
To hoard all savings to the uttermost,
To purchase his own boat, and make a home
For Annie; and so prosper'd that at last
A luckier or a bolder fisherman,
A carefuller in peril, did not breathe
For leagues along that breaker-beaten coast
Than Enoch. Likewise had he served a year
On board a merchantman, and made himself
Full sailor; and he thrice had pluck'd a life
From the dread sweep of the down-streaming seas
And all men look'd upon him favorably;
And ere he touch'd his one-and-twentieth May
He purchased his own boat, and made a home
For Annie, neat and nest-like, half-way up
The narrow street that clamber'd toward the mill.

Then, on a golden autumn eventide,
The younger people making holiday
With bag and sack and basket, great and small,
Went nutting to the hazels. Philip stay'd—
His father lying sick and needing him—
An hour behind; but as he climb'd the hill
Just where the prone edge of the wood began
To feather toward the hollow, saw the pair
Enoch and Annie, sitting hand in hand,
His large gray eyes and weather-beaten face
All kindled by a still and sacred fire,
That burn'd as on an altar. Philip look'd
And in their eyes and faces read his doom;
Then, as their faces drew together, groan'd
And slipp'd aside, and like a wounded life
Crept down into the hollows of the wood;
There, while the rest were loud in merrymaking
Had his dark hour unseen, and rose and passed
Bearing a lifelong hunger in his heart.

So these were wed, and merrily rang the bells
And merrily ran the years, seven happy years,
Seven happy years of health and competence,
And mutual love and honorable toil;
With children; first a daughter. In him woke
With his first babe's first cry, the noble wish
To save all earnings to the uttermost,
To give his child a better bringing-up
Than his had been, or hers; a wish renew'd,
When two years after came a boy to be
The rosy idol of her solitudes,
While Enoch was abroad on wrathful seas,
Or often journeying landward; for in truth
Enoch's white horse, and Enoch's ocean-spoil
In ocean-smelling osier, and his face,
Rough redden'd with a thousand winter gales,
Not only to the market-cross were known,
But in the leafy lanes beyond the down,
Far as the portal-warding lion-whelp,
And peacock-yewtree of the lonely Hall,
Whose Friday fare was Enoch's ministering.

128 So now that shadow of mischance appear'd
129 No graver than when some little cloud
130 Cuts off the fiery highway of the sun,
131 And isles alight in the offing; yet the wife—
132 When he was gone—the children—what to do?

Line 4. What form of verb is *moulder'd?* Why used?
Lines 6 and 7. Meaning of *down* and *Danish barrows.*
Line 37. Explain figure.
Line 59. *Neat and nest-like.* What figure?
Line 67. Meaning of *prone edge?*
Line 72. What figure of speech?
Line 93. What is meant by *white horse?*
Line 96. Explain reference of *market-cross.*
Line 98. Give meaning of *portal-warding lion-whelp.*
Line 100. Explain meaning of this line.
Line 131. Give meaning of *isles alight in the offing.*
8. What attention would you call to the first stanza of this poem?
9. What would you say of the style of this poem?
10. Briefly discuss the benefits and evils of concert reading in the school room.

Note.—In October, 1901, and March 28, 1902, the examination in reading will be based upon Gray's Elegy in a Country Churchyard and The Vision of Sir Launfal, respectively.

SCHOOL LAW.

ALL GRADES.

(Answer any five.)

1. What are "necessary appendages" to a school according to law? Who must provide them?
2. Give three duties of the township board of school inspectors. What is the date of their annual meeting?
3. (a) Who may establish school house sites?
   (b) What may be the size of a school district?
4. Under what conditions may a primary school district organize as a graded school district? Give the legal steps.
5. From what sources are library moneys derived?
6. Give the main provisions of the law in regard to teaching methods of restricting and preventing dangerous communicable diseases.
7. (a) Upon what dates are teacher's examinations held? (b) What is the penalty for non-payment of institute fees?
8. Who has the authority to specify what studies shall be pursued in the public schools?

THEORY AND ART.

ALL GRADES.

1. (a) What is the purpose of a course of study?
   (b) What "limitations" must be kept in mind in preparing a course of study?
2. Define the terms analysis, abstraction, generalization, or name the mental faculties.
3. Under "Laws of Association" we have the following: likeness, dissimilarity, continuity, contiguity. Explain each.
4. Name some forms of "seat work" suitable for first and second grades.
5. Should pupils be permitted to correct one another during a recitation? Why?
6. What daily preparation on the part of the teacher is necessary for the highest success?
7. Describe two forms of language work which you employ in the third, fourth, and fifth grades.
8. (a) Where, with reference to the class, should a teacher be located during a recitation? Why? (b) Should pupils stand or sit when reciting? Why?

UNITED STATES HISTORY.

FIRST AND SECOND GRADES.

1. Give physical reasons why the United States can avoid entangling alliances with the Powers.
2. Give three motives for colonization in the "New World?"
3. Briefly contrast the colonial policy of the Spanish and the English.
4. What was the cause of the war between the United States and Spain? Give result and effect of the same.
5. Mention three events which have affected the country either politically or industrially. Give reasons for selection.
6. What act regulating commerce with Europe was passed during Jefferson's administration? State reasons for passage and give effect.
7. Tell in connection with what question the names of Clay and Calhoun are famous and state position of each.
8. Account for the present social and economic conditions of the South.
9. (a) What is the Pendelton Civil Service Act?
   (b) State under whose administration it was passed and whether in force at present.
10. Speak briefly of the conflict between the president and Congress on the Reconstruction question.

THIRD GRADE, CLASS B.

1. What evidence have we that the Indians were not the first inhabitants of North America?
2. State the commercial policy of England toward her American colonies and the effect of the same.
3. Briefly compare the strength of the combatants in the Revolution regarding number, spirit of commanders, arms, and discipline.
4. What was the three-fifths compromise, and to whom has it proved an advantage? Why?
5. State cause, result, and effect of the Mexican war.
6. For what are the following noted: S. F. Morse, Oliver H. Perry, Andrew Jackson, General Custer, Theodore Roosevelt?
7. Tell what you understand by "squatter sovereignty," and state the effect of same, with reasons, upon sectional feeling.
8. What was the Toledo war? Of what advantage has the outcome been to us?
9. State effect of the cotton gin upon slavery, also that of the steamboat upon commerce. Name inventor of each.
10. Make a definite statement concerning: The Steel Strike, Coronation of Edward VII, Affairs in China, Negro Disfranchisement, Philanthropy of Carnegie.

CLASS A.

1. What evidence have we that the Indians were not the first inhabitants of North America?
2. State the commercial policy of the English toward her American colonies and the effect of the same.
3. Mention some topics which you would consider in your history outline.
4. Connect events with the following dates: 1565, 1607, 1619, 1620, 1774, 1776.
5. When, where, and by whom was the first settlement made in Michigan?
6. For what are the following noted: S. F. Morse, Oliver H. Perry, Andrew Jackson, General Custer, Theodore Roosevelt?
7. Tell what you understand by "squatter sovereignty," and state the effect of same, with reasons, upon sectional feeling.
8. What was the Toledo war? Of what advantage has the outcome been to us?
9. State effect of the cotton gin upon slavery, also that of the steamboat upon commerce. Name inventor of each.
10. Mention a statesman, a distinguished poet, celebrated editor, and famous author who advocated the abolition of slavery.

V. QUESTIONS PREPARED BY THE SUPERINTENDENT OF PUBLIC INSTRUCTION FOR THE REGULAR EXAMINATION, OCTOBER, 1901.

ALGEBRA.

SECOND GRADE.

1. (a) Find a divisor and the quotient of $y^3 - 512x^6$.
   (b) Find all the divisors of $(a + b)^2 - 9(c + d)^2$.
2. Factor $(x + y)^2 - (x - y)^2$; $1 - (a^2 + b^2) + 2ab$.
3. Simplify: $\frac{x^2-3x+8}{x^2-x-12} - \frac{x-1}{x+3}$.
4. Simplify $\frac{y(x^2-y^2)}{x} \div \frac{x^4-x^2y^2+y^4}{x-y}$.
5. Bought 8 yards of cloth, and if I had bought 1 yard more for the same money, each yard would have cost 25 cents less. What did the cloth cost per yard?
6. If 10 apples cost 3 cents and 21 pears cost 5 cents, and I buy 93 apples and pears for 24 cents, how many of each will I have?
7. A number consisting of two digits is equal to four times the sum of its digits, and one and one-half times the number is equal to the square of the sum of the digits. What is the number?
8. Simplify: $3\sqrt{2} - 5\sqrt{\frac{1}{2}} - 6\sqrt{\frac{1}{3}} + \frac{1}{2}\sqrt{3} - \sqrt{\frac{1}{3}} + \frac{1}{2}\sqrt{27}$.
9. Extract the square root of $59 - 30\sqrt{2}$.
10. One leg of a right triangle exceeds the other by 21 feet, and the area of the triangle is 270 square feet. What are the sides?

ARITHMETIC.

THIRD GRADE, BOTH CLASSES.

Mental Work.

(Twenty-five credits for this work.)

1. Buy peaches at 75 cents a bushel, at what price must I sell them that I may make 20%, if freight is 10 cents a bushel and one bushel in every five spoils?
2. How many cords of stove wood in a pile 12 ft. long, 5½ ft. high at one end, and 6 ft. high at the other?
3. Paid $360 for two horses, the first costing ⅘ as much as the second. What was the cost of each?
4. Gave A ½ my money, B ⅓ the remainder, and C the rest of it, C receiving $20 less than A. How much did each receive?
5. ⅔ of ½ of Mr. B's farm at $30 an acre cost $900. How many acres had he?

Written Work.

CLASS B.

(50 credits for this work.)

1. Make and explain a problem in commercial discount.
2. Show by a diagram a piece of land described as the S. ½ of the N. E. ¼ of S. E. ¼, Section 16, and compute the number of acres it contains.
3. How many feet of lumber will it take for the roof boards of a barn 30 ft.x40 ft., if the gable rises 20 ft. and the eaves project 18 inches?

4. How much interest will accumulate on a 60-day note for $480, dated August 1, 1901, drawing 6% until due and 8% after due, if paid July 1, 1902?
5. At $1.50 a rod, what will it cost to fence a square 160-acre farm and divide it into four square fields?

CLASS A.

1. Make and explain a problem in commercial discount.
2. Show by a diagram a piece of land described as the S. ½ of the N. E. ¼ of S. E. ¼, Section 16, and compute the number of acres it contains.
3. Explain how you would illustrate a fraction to a primary class in numbers.
4. Explain as to a class subtraction when the figure of the subtrahend is larger than the corresponding figure of the minuend.
5. When and how do you begin addition of fractions?

MENTAL ARITHMETIC.

ALL GRADES.

(Accuracy and speed test.)

Note.—(1) Distribute these lists among all the applicants, placing them face down upon the desks.
(2) Each applicant write his number (or name) across the back of the list.
(3) At a signal from the Commissioner, all reverse the papers and, in *the right-hand margin*, write as many answers to the 20 questions as possible in *15 minutes*.
(4) At the second signal, all again reverse the papers, when they will at once be collected by the examiners.
Give (a) *one-fourth per cent* for each answer written. (b) *One per cent* additional for each *correct* answer, making 25% for this part of the examination.

1. 10 cents is 15 cents less than the money Henry had left after paying 28 cents for a book, 36 cents for a knife, and 11 cents for a pen holder. How much had he at first?
2. Add 5 times 2½, 3½ times 2½, and 3¾.
3. The subtrahend is 12¾, the remainder 25⅞. What is the minuend?
4. The quotient is ¾ the divisor ¼. What is the dividend?
5. Using the fractions ⅝ and $\frac{7}{12}$, take the quotient of the less divided by the greater from their sum.
6. How many times can 75 be taken from 1,200?
7. What is the sum of 12½ added to itself 23 times?
8. Find the cost of 150 lbs. butter at 13c a lb.
9. Bought paper at 15 cents a quire and sold it at a cent a sheet. What per cent profit did I make?
10. Sold wood at $2 a cord, gaining ¼ of the receipts. What per cent did I gain?
11. A's work is 80 per cent of B's. How many days for A to do what B could do in 20 days?
12. What is the discount on a bank note of $320, for 63 days at 6 per cent?
13. A's money is ⅔ of B's, and ⅗ of what both have is $15. How much has each?
14. What cost 2½ dozen napkins at one shilling each?
15. How many acres of land in a field ¼ mile long and 20 rods wide?
16. How many pints to fill ¼ gross of half-gallon bottles?
17. How many acres of land in the N. E. ¼ of the N. E. ¼ of a section?
18. What is the time of day when the time past midnight is the same as the time to midnight?
19. A man sells 15 oz. for a pound. How many pounds must he buy that he may cheat his customers out of ten pounds?
20. What is the cube root of 8x4x250?

BOTANY.

SECOND GRADE.

1. What parts perform the work of nourishing a plant?
2. State the function of the stem. Describe three kinds.
3. What is the function of fleshy roots?
4. What conditions are necessary for the germination of a seed?
5. Define caulicle, stolon, nodes, dormant buds, compound leaves.
6. Describe three peculiar forms and uses of leaves.
7. What is meant by the terms hypogynous, periginous, epipetalous, epigynous, diadelphous?
8. Give botanical description of the morning glory.
9. What constitutes a fruit? Name five kinds.
10. What do you understand by nature study in connection with botany?

CIVIL GOVERNMENT.

SECOND GRADE.

1. (a) In what way are territorial governments represented in Congress?
   (b) Mention the advantages that are gained by a territory in becoming a state.
2. Why is it necessary for the United States to confer with any foreign powers regarding the building of a canal across the isthmus of Panama?
3. Give method by which a person becomes a member of the President's cabinet.
4. What are the duties of any two of the cabinet officers?
5. Discuss the constitutional provision with reference to ex-post facto law.
6. Outline the various courts of the United States.
7. Mention all the powers of Congress with reference to money.
8. Explain as to a class treaties, with reference to the following:
   (a) making them.
   (b) their binding force.
   (c) terminating them.
9. Trace the "Three Departments of Government" from the national government down through the various sub-governments to the township.
10. Explain why the suppression of anarchistic speeches is a "delicate matter," or what provision of the constitution makes it difficult to suppress anarchistic speeches?

THIRD GRADE, CLASS B.

1. (a) How are the United States senators elected?
   (b) Name those from Michigan.
2. (a) How is the present Congress designated?
   (b) When and how will the number of members in the next Congress be changed?
3. (a) By what provision did Roosevelt become President and when?
   (b) In case of his death who would succeed him?
4. What is an income tax? A tax for revenue?
5. (a) What are the official titles of the President's cabinet?
   (b) Name the present members.
6. When will the next Michigan legislature be elected? When will it convene?
7. Who are the State officers?
8. How many members in the State legislature? Will this number be changed by the last census? Why?
9. Name your county officers.
10. Explain the steps by which they were nominated.

CLASS A.

1. (a) How are the United States senators elected?
   (b) Name those from Michigan.
2. (a) How is the present Congress designated?
   (b) When and how will the number of members in the next Congress be changed?

3. (a) By what provision did Roosevelt become President and when?
   (b) In case of his death who would succeed him?
4. What is meant by an income tax? A tax for revenue?
5. (a) Who issues the proclamation fixing the date of Thanksgiving?
   (b) When will it probably be this year?
6. When will the next Michigan legislature be elected? When will it convene?
7. Name some State officer and tell what his duties are.
8. How many members in the State legislature? Will this number be changed by the last census? Why?
9. Name your county officers.
10. (a) What are the officers of a school district?
    (b) When and how are they elected?
    (c) With which one should the teacher correspond regarding school matters?

GENERAL HISTORY.

SECOND GRADE.

1. Speak briefly of the civilization of the early Egyptians.
2. For what are the following noted: Pericles, Aristotle, Alexander the Great, Homer, Gladstone, Hannibal, Von Moltke, Charlemagne, Gustavus Adolphus, De Wet.
3. Who composed the two triumvirates? State the purpose of each.
4. Speak briefly of the struggle which resulted in granting the Magna Charta.
5. Give the effects of the capture of Constantinople by the Turks.
6. Briefly state what Napoleon accomplished.
7. What countries constitute the three peninsulas of Southern Europe? Historically, which is the most interesting and why?
8. Tell what three powerful nations in Europe are watching one another with suspicion and why?
9. Speak briefly of China's apology to Germany.
10. Give a brief characterization of Bismark.

GEOGRAPHY.

SECOND GRADE.

1. What is meant by the continental plateau?
2. Trace the continental divide of the American continents.
3. (a) What can you say of the present commercial strife between Europe and the United States?
   (b) Along what lines is the competition the greatest?
4. What cities of Europe are on the same, or nearly the same, parallel of latitude as Detroit?
5. Locate the regions of the world where the following are produced: copper; iron; aluminum; silver.
6. What specific facts should pupils learn about London, Paris, Rome?
7. What effects would be produced if the earth's axis were perpendicular to the plane of its orbit?
8. Describe the Philippines as to location, area, productions, and name the four largest islands.
9. Trace a railroad route from Philadelphia to Los Angeles.
10. Locate Teheran, Cape Town, Berlin, Oklahoma, Cleveland, and give a recent event connected with each.

THIRD GRADE, CLASS B.

1. Name and locate accurately the capitals of each of the following: Japan, Russia, Alaska, China, India.
2. Locate the agricultural regions of Europe and name the agricultural products that come into competition with those of the United States.
3. Locate accurately the "fruit belt" of Michigan.

4. Name and locate the important commercial cities in the United States west of the Mississippi.
5. Describe the Missouri river.
6. Name the north central states, their capitals, and locate the metropolis of each.
7. (a) Define erosion, plateau, delta. (b) Name three rivers that have deltas.
8. Name the counties of Michigan that border on Lake Superior.
9. Name and locate the countries where the following articles are produced: rubber; asphaltum; cinnamon; mahogany; cotton; opium; cinchona; tea.
10. Draw a map of Michigan and locate ten cities, four railroads, two bays, and your own county.

CLASS A.

1. What use do you make of the "laws of association" in teaching geography?
2. Outline a lesson on your county as you would teach it in the third grade.
3. What importance do you attach to physical features in teaching geography? Why?
4. (a) Name the counties of Michigan which border on Lake Superior. (b) What are the chief productions of these counties?
5. Describe the proper position of the globe when using it before a class.
6. Name the countries of the world that produce cotton, petroleum, coffee, copper, rubber.
7. Name the south central states and their capitals.
8. How does Michigan rank among the states in the production of copper, iron, wheat, salt?
9. Locate Bogota, Cairo, Port Said, Singapore, Port Arthur.
10. When should pupils begin map drawing? Why?

GRAMMAR.

SECOND GRADE.

1. (a) What is your aim in teaching grammar in the seventh and eighth grades? (b) What does the State Manual say about the grammar work of these grades?
2. Name the different complements and illustrate each in a sentence.
3. Dispose of the italicized words in the following sentence: When I had gone *half* a *mile*, I made my *servant return, as* my opinion of the pools *was unchanged; never* were *there* such places for trout; *but* the trout were *out of their* places.
4. Give examples of five methods for the irregular formation of plurals.
5. Name the primary tenses.
6. (a) What determines the grammatical construction of a word in a sentence? (b) Write sentences to illustrate how the same word may have different constructions.
7. Should conjugation be taught by "rote" or by the actual use in sentences? Give reasons for your answer.
8. (a) Give general rule for the position of adverbs in a sentence. (b) Give same for clauses.
9. Analyze,—Five times six is thirty.
10. Expand the following statements by use of clauses, naming kinds:
    (a) He spoke to be heard.
    (b) The light on sea and land was lost.
    (c) O, to dream this life away!
    (d) I promised her to protect her interests.

THIRD GRADE, CLASS B.

1-2. Write three paragraphs on the subject.—A trip to the Pan-American.

NOTE.—Write these as you would begin a formal essay, not as a complete story. Examiners will mark on your ability to express thought, on spelling, capitalization, punctuation, indentation, and neatness.

3. What is the work of the sixth grade in grammar, according to the State Manual and Course of Study?
4. Give rules for forming the possessive in the singular, in plurals ending in *s*, and in compound terms. Illustrate each.

5. When is the imperative mode used?
6. Parse the italicized words in the following: A train a *mile long*, *bearing* the soldiers, *wound* through *the* valley.
7. What should be considered by the teacher when selecting topics for language work?
8. Correct if necessary, giving reasons:
   (a) The hen sets on the nest.
   (b) He lives at London.
   (c) He boards to the hotel.
   (d) You look badly.
   (e) I feel badly.
   (f) I wish you would try and see him.
9. Define comparison, predicate noun, inflection, verbal.
10. Analyze,—Four and five is nine.

CLASS A.

1. Same as No. 1 in Class B.
2. State clearly how you would teach a language lesson on the words to, too, two.
3. Write sentences to show the correct use of sit, set; lie, lay; sweet, sweetly; because, since; less, lest.
4. What should be the *ratio* of oral to written work in the second grade? The third grade?
5. Name the kinds of sentences according to use. Give examples of each.
6. Analyze,—The load which we made him carry weighed one hundred pounds.
7. What should be considered by the teacher when selecting topics for language work?
8. Correct if necessary, giving reasons:
   (a) The hen sets on the nest.
   (b) He lives at London.
   (c) He boards to the hotel.
   (d) You look badly.
   (e) I feel badly.
   (f) I wish you would try and see him.
9. Define comparison, inflection, subordinate conjunctions, verbals.

ORTHOGRAPHY.

ALL GRADES.

1. What is your method for teaching diacritical marks? Why is a knowledge of these marks essential?
2. Use the following in sentences: rood, rude; seer, sere, sear; shear, sheer; tier, tear.
3. Define and illustrate synonym, homonym, and derivatives.
4. Indicate the pronunciation of the following: tortoise, tapestry, stupid, savant, laundry, illustrate, lamentable, jugular, harem, jaunt.
5. Give rules for spelling the present participle of drop, ride, die, eat, dye.

LIST OF WORDS.

ecstacy
Lowell
judgment
arrangement
mechanism
accommodation
thoracic
barometer
necessity
esthetic
correlation
negative
utilized
croquet
etiquette
faucet
franchise
garrulous
immersion
inexhaustible
hurrah
irreparable
lichen
magnesia
nomenclature
nuptial
orthoepy
pedagogical
prairie
sanguine
squalor
apparatus
peristaltic
digestion
responsibility
tonsils
diaphragm
Mediterranean
universal
compulsory
innovation
characteristic
originally
emancipation
retirement
forbidding
acquisition
recognize
practically
guarantee

PENMANSHIP.

ALL GRADES.

(Write with pen. 70 credits for handwriting; 30 for answers.)

1. (a) What advantages are claimed especially for the vertical system of penmanship?
   (b) What for the slant system?
2. To what three things do you give most attention in teaching penmanship?
3. Why should the muscular movement not be attempted with primary grades?

PHYSICS.

SECOND GRADE.

1. Define gravity, motion, work, energy, momentum.
2. The Eiffel tower is 300 metres high; how long will it require a hammer to drop from the top to the ground?
3. Give the general law as to power and weight in mechanical forces.
4. Define specific gravity, latent heat, dynamics.
5. (a) What is meant by air pressure? Describe an experiment to illustrate it.
   (b) State Mariotte's Law.
6. What is the use of the siren?
7. (a) Define transparent, translucent, and opaque bodies.
   (b) What is the law of light-variation?
8. Define real and virtual images, and explain when formed.
9. What is the law of magnets? What practical use is made of that law in science and mechanics?
10. (a) What are the essentials of a battery?
    (b) Define galvanometer, ampere, helix, electro-magnetism.

PHYSIOLOGY.

SECOND GRADE.

1. Discuss the relation between respiration and process of human repair.
2. Give meaning of the following terms: cell, tissue, ganglion, phalanges, corpuscles.
3. Mention three necessary foods and explain action of the digestive fluids upon them.
4. What effect has alcohol upon the blood? Upon the muscles?
5. Write an outline for the study of the heart suitable for seventh and eighth grades.
6. What use do you make of diagrammatic drawing in teaching physiology?
7. (a) What organ divides the trunk into two parts?
   (b) What organs occupy the chest cavity?
8. Briefly describe the structure of the inner ear.
9. Of what does the cerebro-spinal nervous system consist?
10. Make a drawing showing a longitudinal section of a long bone. Name and describe parts.

THIRD GRADE, CLASS B.

1. Name the divisions of the alimentary canal.
2. Of what use is the outer ear?
3. Tell why cigarette smoking is more injurious than other forms of tobacco.
4. State the physiological effects of cold and hot baths.
5. By what means is the waste of the body given off?
6. (a) How would you ventilate a sick room?
   (b) How would you treat a sprain?
7. State the difference in effect between a tonic, a stimulant, and a narcotic.
8. How is the voice produced? Upon what does the pitch depend?

9. (a) What is the function of the blood?
   (b) What provision has nature made for stopping hemorrhage?
10. Locate the following parts of the eye: iris, sclerotic coat, cornea, crystalline lens, retina.

CLASS A.

1. Name the divisions of the alimentary canal.
2. Of what use is the outer ear?
3. Tell why cigarette smoking is more injurious than other forms of tobacco.
4. Give some directions for the preservation of the teeth to which the attention of the pupils should be called.
5. By what means is the waste of the body given off?
6. (a) How would you ventilate a sick room?
   (b) How would you treat a sprain?
7. Why is it imprudent to exercise vigorously immediately after eating?
8. What exercises would you advocate for developing a full chest? For developing the muscles of the back?
9. (a) What is the function of the blood?
   (b) What provision has nature made for stopping hemorrhage?
10. Describe the spinal column and state why children should be cautioned against standing or sitting in incorrect positions.

READING.

ALL GRADES.

1. Tell what is meant by diction and mention some means of acquiring good diction.
2. Give meaning of the following tones: Simple, orotund, plaintive, aspirated.
3. State your plan for studying a patriotic speech; for example, Webster's Bunker Hill Oration.
4. Mention five common faults in the reading work of pupils.
5. Briefly discuss the value of phonetics in primary reading work.
6. Mention some supplementary reading suitable for third grade work.

7, 8, 9, 10.

ELEGY WRITTEN IN A COUNTRY CHURCHYARD.

The curfew tolls the knell of parting day,
The lowing herd winds slowly o'er the lea,
The ploughman homeward plods his weary way,
And leaves the world to darkness and to me.

Now fades the glimmering landscape on the sight,
And all the air a solemn stillness holds,
Save where the beetle wheels his droning flight,
And drowsy tinklings lull the distant folds.

Save that from yonder ivy-mantled tower
The moping owl does to the moon complain
Of such as, wandering near her secret bower,
Molest her ancient solitary reign.

Beneath those rugged elms, that yew-tree's shade,
Where heaves the turf in many a moldering heap,
Each in his narrow cell forever laid,
The rude forefathers of the hamlet sleep.

The breezy call of incense-breathing morn,
The swallow twittering from the straw-built shed,
The cock's shrill clarion, or the echoing horn,
No more shall rouse them from their lowly bed.

For them no more the blazing hearth shall burn,
Or busy housewife ply her evening care;
No children run to lisp their sire's return,
Or climb his knee the envied kiss to share.

Oft did the harvest to their sickle yield,
Their furrow oft the stubborn glebe has broke;
How jocund did they drive their team afield!
How bowed the woods beneath their sturdy stroke!

Let not ambition mock their useful toil,
Their homely joys, and destiny obscure;
Nor grandeur hear with a disdainful smile
The short and simple annals of the poor.

The boast of heraldry, the pomp of power,
And all that beauty, all that wealth e'er gave,
Await alike the inevitable hour:
The paths of glory lead but to the grave.

Nor you, ye proud, impute to these the fault,
If memory o'er their tomb no trophies raise,
Where, through the long-drawn aisle and fretted vault,
The pealing anthem swells the note of praise.

Can storied urn, or animated bust,
Back to its mansion call the fleeting breath?
Can honor's voice provoke the silent dust,
Or flattery soothe the dull cold ear of Death?

Perhaps in this neglected spot is laid
Some heart once pregnant with celestial fire;
Hands that the rod of empire might have swayed,
Or waked to ecstasy the living lyre:

But knowledge to their eyes her ample page,
Rich with the spoils of time, did ne'er unroll;
Chill penury repressed their noble rage,
And froze the genial current of the soul.

Full many a gem of purest ray serene
The dark, unfathomed caves of ocean bear:
Full many a flower is born to blush unseen,
And waste its sweetness on the desert air.

Some village Hampden, that, with dauntless breast,
The little tyrant of his fields withstood,
Some mute, inglorious Milton here may rest,
Some Cromwell, guiltless of his country's blood.

The applause of listening senates to command,
The threats of pain and ruin to despise,
To scatter plenty o'er a smiling land,
And read their history in a nation's eyes,

Their lot forbade: nor circumscribed alone
Their growing virtues, but their crimes confined;
Forbade to wade through slaughter to a throne,
And shut the gates of mercy on mankind.

What scene is brought to mind by the first three stanzas?
Lines 14, 15. Give meaning of these lines.
Line 22. What is meaning of *ply*?

Line 26. What is meant by *furrow* and *glebe*?
Line 29. Explain figure.
Line 37. Why this admonition?
Line 42. What figure? Explain.
Lines 51, 52. Give station in life, shown here.
Lines 55, 56. Explain these lines.
Lines 57-60. Explain references to Hampden, Milton, and Cromwell.
Lines 67, 68. To what Englishman might these lines refer?
What famous general spoke high praise for this selection?
What is the purpose underlying this poem?
Briefly mention the great beauties of Gray's Elegy.

SCHOOL LAW.

ALL GRADES.

(Answer any five.)

1. What reports is a teacher required by law to make to the director? What other duties devolve upon the teacher according to law?
2. Give the provisions of the truancy law which concern the teacher.
3. Who is the librarian of a school district library?
4. What subjects are required by law to be taught in all public schools?
5. Who constitute the school board in the township unit districts of Michigan?
6. What penalties are prescribed upon a school officer for neglect or failure to perform the duties required by law?
7. What is included in the term public money as mentioned in the school law?
8. Why should a teacher secure a legal contract before beginning to teach in any district?

THEORY AND ART.

ALL GRADES.

1. Give three reasons why every teacher should have a knowledge of the "laws of teaching."
2. In what order are the mental faculties of the child naturally developed?
3. State three differences between "lessons" and "recitations."
4. Give your method of calling on pupils to recite, giving reasons for answer.
5. Name three characteristics of a good question.
6. (a) What parts of arithmetic should be taught in the sixth grade?
   (b) What parts of geography and grammar?
7. State explicitly the work of the eighth grade according to the State Manual.
8. "Knowledge should be adapted to the learner." What is meant by this rule of pedagogy?

UNITED STATES HISTORY.

SECOND GRADE.

1. Which should first be studied American or general history? Why?
2. Write 75 words on Theodore Roosevelt.
3. Briefly describe the Dred Scott Decision.
4. State the importance of the Mississippi river during the Civil war.
5. Account for the difference in the colonial system of New York and Jamestown.
6. State the effect of the battle of Saratoga.
7. Of what commercial value are the Philippines to the United States?
8. Why did slavery so early die out in the North?
9. What political question is agitating some of the southern states? Account for it.
10. What can you say of the Sampson-Schley controversy?

THIRD GRADE, CLASS B.

1. Tell when slavery was introduced into America and briefly state the effect of same.
2. Distinguish between royal and proprietary colonies. Name one of each.
3. After what time was the Revolutionary war called the War of Independence? Why?
4. Why was the South so desirous of admitting the new territories as slave states?
5. What is meant by "reconstruction" at the close of the Civil war?
6. State the advantage of discussing current political questions in the class room.
7. What do you understand by the Homestead law? Why does the government sell land so cheap?
8. What use do you make of maps in teaching history?
9. (a) How were the colonies governed during the Revolution?
   (b) How during the interim between the Revolution and the adoption of the Constitution?
10. Mention some principles President McKinley advocated in his speech at Buffalo.

CLASS A.

1. What topics in history should receive attention in primary grades?
2. Write a brief outline for a study of the Pilgrims suitable for third or fourth grades.
3. After what time was the Revolutionary war called the War of Independence? Why?
4. Mention three men whose biographies you would teach, telling what particular points you would emphasize in each case.
5. What is meant by "reconstruction" in connection with the confederate states at the close of the Civil war?
6. What historical event is suggested by Ticonderoga, Gettysburg, Fort Sumpter, Appomattox?
7. Make a definite statement concerning each of the following: The Steel Strike, Commodore Schley, the Pan-American, Oil Fields of Texas, Emma Goldman.
8. Tell what the nullification of 1832 was and what the position of the President upon the same.
9. Mention some aids you use to make your history work interesting.
10. Mention some principles President McKinley advocated in his speech at Buffalo.

EDUCATIONAL FUND.

PRIMARY SCHOOL FUNDS.

Seven per cent fund:		
Amount on which State pays interest June 30, 1901	$4,122,832 63	
Due from purchasers of land, June 30, 1901	95,504 75	
Total seven per cent fund, June 30, 1901		$4,218,337 38
Five per cent fund:		
Amount on which State pays interest June 30, 1901		877,575 68
Total school fund June 30, 1901		$5,095,913 06

INCOME ON PRIMARY SCHOOL INTEREST FUND.

Interest paid by State on seven per cent fund during year ending June 30, 1901	$282,785 94	
Interest and penalty paid by holders of land on seven per cent fund during year ending June 30, 1901	7,512 57	
Interest paid by State on five per cent fund	43,523 57	
Total income from both funds		$333,822 08
Surplus of specific taxes transferred	$1,102,615 85	
Paid by trespassers on school land	2,263 12	
Total		1,104,878 97
Total income for year ending June 30, 1901		$1,438,701 05

UNIVERSITY FUND.

Amount on which State pays interest June 30, 1901	$536,748 61	
Interest paid by State (on land grant)		$37,443 51
Interest paid by State on deposit		4 17
Interest and penalty paid by holders of land		1,067 83
Total income for year ending June 30, 1901		$38,515 51

AGRICULTURAL COLLEGE FUND.

Amount on which State pays interest June 30, 1901	$832,608 09	
Interest paid by State		$57,621 30
Interest and penalty paid by holders of land		4,656 84
Paid by trespassers on lands		1,898 15
Received from United States Government		25,000 00
Total income for the year ending June 30, 1901		$89,176 29

NORMAL SCHOOL FUND.

Amount on which State pays interest June 30, 1901	$67,842 62	
Interest paid by State		$4,022 11
Interest and penalty paid by holders of lands		179 57
Total income for year ending June 30, 1901		$4,201 68

FINANCIAL REPORT

OF

UNIVERSITY OF MICHIGAN

UNIVERSITY OF MICHIGAN.

THE TREASURER'S REPORT FOR THE FISCAL YEAR ENDING JUNE 30, 1901.

For several years past it has been the practice to print, in connection with the President's Annual Report, the full itemized report of the Treasurer. This year, in place of the Treasurer's report, the Regents present a statement concerning the receipts and expenditures of the University and the condition of its finances and accounts in different form, as follows:

GENERAL ACCOUNT.

Disregarding for the present, the condition of the trust funds and taking no account of the balances at the beginning and end of the year, it appears that the receipts amounted in the aggregate to $588,423.15, and the disbursements to $565,953.54; thus showing an apparent gain of $22,469.61. But that this is not an indication of any real improvement in the condition of the funds will be clearly recognized, when attention is called to the fact that, at the close of the previous fiscal year, June 30, 1900, the University had received from the State Treasurer only six tenths of the proceeds of the quarter-mill tax for the year 1900, while, on the 30th of June, 1901, seven tenths of the tax for 1901 had been received, thus abnormally increasing the receipts by the sum of $27,627.50.* Indeed, when the accounts for the year are analyzed and scrutinized with care, it becomes evident that only by the exercise of strict economy and by postponing outlay for many needed improvements has it been possible to keep the expenditures within the income.

In the itemized statement of the sources of income, given below, the net receipts from students for laboratory expenses and other charges of analogous character are given as $34,850.29; but this sum should not be considered as an actual addition to the income of the University, but rather as a reimbursement for the cost of material and special supplies purchased by the University for students' use. Neither should the Hos-

*$27,627.50 is one tenth of the annual tax on the basis of the valuation of the State as equalized in 1896.

pital receipts be treated as earnings of the University, for they are made up of payments by patients for board, medicines, and special nursing, the cost of which appears on the other side of the account in the large items of Hospital expenses. The services of the faculties are gratuitous to patients whose cases are available for clinical instruction. The Hospitals are, in fact, a continual source of large expense, not of income. The receipts from the dental operating room, coming from persons who take advantage of the clinical opportunities there offered, paying only for material used, are also to be regarded as an offset against the expenses of the department.

The money set aside by the State Treasurer and the Auditor General as a University Building Fund is drawn, under provisions of State laws, from the proceeds of the quarter-mill tax, and can only be used by the Regents in the erection of new buildings or for extraordinary repairs. From this fund there was expended during the past year sums as follows:

On the New Homœopathic Hospital	$45,811 99
On addition to Old Homœopathic Hospital	551 36
On repairs to University Hospital	247 70
	$46,611 05

The amount standing to the credit of this fund on the 30th of June, 1901, will be exhausted by the time the new medical building now under way, is completed. It is expected that the new building will be ready for occupancy in 1902.

The pay rolls for the year amounted in the aggregate to $350,345.32, constituting the largest item of expenditure. As the University is organized, it is not easy to apportion with exactness the aggregate sum among the several departments; but a close approximation is reached by preparing a separate pay roll for each department (excepting the department of literature, science, and the arts), and placing upon it the names of all the officers whose duties lie wholly, or chiefly, in such department. (The portion of salaries paid to the Bates Professor of the Diseases of Women and Children, and his assistants, in the Department of Medicine and Surgery, amounting to $2,310, which was drawn from the income of the Bates Fund, is not here included.)

The pay roll of the Department of Literature, Science, and the Arts is included in what is designated below as the General Pay Roll. This comprises in addition to the salaries of professors and other instructors, the salaries of the administrative officers of the University, with their necessary assistants and clerks, and of the whole body of permanent employees, of whatever grade, who are paid by the year or month and are not included in the department rolls. The pay rolls of laborers employed for short periods and paid weekly are charged to the contingent account, the repairs account, or otherwise, according to the nature of the service rendered.

In the summary of expenditures given below, the classification is intended to show, as clearly as may be, the relative cost of the different departments of the University and of the different lines of work it is carrying on, without entering into undesirably minute details. No attempt, for example, is made to distribute *pro rata* among the departments the cost of general administration, heating and lighting, care of buildings and grounds, etc., nor the expenses of the gymnasium and the

laboratories in which students from more than one department receive instruction at the same time; and some of the minor expenditures provided for in the annual budget are here grouped under some more comprehensive heading. A minute account of all these matters is given by the Treasurer in his report to the Regents.

Summary of Receipts, showing sources of income, for the fiscal year ending June 30, 1901:

A. From the State Treasury:		
For Current Expenses:		
From quarter-mill tax for the year 1900 (two tenths)		$55,255 00
From quarter-mill tax for the year 1901 (seven tenths)		193,392 50
From special appropriation for Homœopathic College		6,000 00
From University Interest Fund		38,436 32
For Building Fund		36,048 35
Total from State Treasury		$329,132 17
B. From Students' Fees and Deposits:		
(1) Matriculation Fees and Annual Fees:		
Department of Literature, Science, and the Arts		$53,470 00
Department of Engineering		15,720 00
Department of Medicine and Surgery		24,640 00
Department of Law		40,887 50
School of Pharmacy		8,250 00
Homœopathic Medical College		3,085 00
College of Dental Surgery		12,580 00
Summer Schools:		
Literary Department		8,166 00
Medical Department		615 00
Law Department		1,745 00
		$164,158 50
Less amounts refunded to students under the regulations of the Regents		3,850 00
Net receipts from matriculation fees and annual fees		$160,308 50
(2) Diploma Fees	$7,710 00	
Less sums refunded	80 00	7,630 00
(3) Payments and deposits on account of laboratory courses, rent of gymnasium lockers, use of drawing boards, and the like		$37,892 27
Less sums returned to students on settlement		3,041 98
Net receipts from this source as previously stated		$34,850 29
C. Receipts from Miscellaneous Sources:		
From University Hospital		$28,625 11
From Homœopathic Hospital		10,169 91
From Dental Operating Room		5,434 33
From Engineering Shops		418 95
From interest on bank deposits		1,281 61
From return of premium on canceled insurance policies		1,305 46
Unclassified		2,294 84
Total miscellaneous receipts		$49,530 21
Recapitulation:		
From State Treasury		$329,132 17
From Students' Fees and Deposits (gross receipts)		209,760 77
From miscellaneous sources		49,530 21
Total receipts, as previously stated		$588,423 15

Summary of Expenditures for the fiscal year ending June 30, 1901:

A. PAY ROLLS:	
General Pay Roll	$165,575 46
Department of Engineering	38,676 87
Department of Medicine and Surgery	38,220 00
University Hospital	10,273 72
Department of Law	35,362 00
School of Pharmacy and Chemical Laboratory	24,006 80
Homœopathic Medicol College	10,900 00
Homœopathic Hospital	3,616 35
College of Dental Surgery	12,875 00
Bindery	2,435 50
Summer Schools:	
Literary	7,075 00
Law	1,328 62
Total, as previously stated	$350,345 32
B. EXPENSES FOR LABORATORIES, SHOPS, DEMONSTRATION COURSES, ETC.:	
Botanical Laboratory and Garden	$1,058 54
Zoological Laboratory	621 54
Chemical Laboratory	11,242 42
Physical Laboratory	2,447 66
Engineering Laboratories and Shops	2,014 66
Histological Laboratory	482 41
Hygienic Laboratory	1,078 09
Anatomical Laboratory, material and supplies	1,950 43
Physiological Laboratory	367 00
Surgical Demonstrations, etc	366 99
Pathological Laboratory	762 03
Electrotherapeutical Laboratory	521 82
Dental Operating Room (including incidental expenses of the College of Dental Surgery)	6,109 97
	$29,023 56
C. LIBRARIES:	
Book purchases (not including purchases from trust funds):	
General Library	$10,842 76
Medical Library	1,212 43
Law Library	1,560 53
Homœopathic Library	242 44
Dental Library	90 26
Incidental expenses, assistants, cataloguing, etc	1,481 55
	$15,429 97
D. DEPARTMENTAL EXPENSES:	
Department of Literature, Science, and the Arts (Appointment Committee, English, Geology, German, Greek, Latin, Mineralogy, Music, Philosophy, Semitics)	$1,327 67
Department of Engineering	614 81
Department of Medicine and Surgery (Asylum Pathologist, Dermatology, Gynæcology, Materia Medica, Nervous Diseases, Ophthalmology, Theory and Practice, Incidentals)	1,970 70
Department of Law	930 44
Homœopathic Medical College	212 92
Summer Schools:	
Literary Department	483 37
Law Department	91 38
Hospitals:	
University Hospital	24,016 17
Homœopathic Hospital	13,482 88
Laundry Account	2,777 76
	$45,908 10

E. New Buildings and Extraordinary Repairs:	
New Homœopathic Hospital	$45,811 99
Addition to Engineering Laboratory	9,899 77
Alterations and Repairs at the Hospitals	7,934 94
	$63,646 70
F. Miscellaneous Current Expenses:	
Contingent Account	$6,432 51
Ordinary Repairs	8,750 53
Fuel and Lights	22,878 14
Water Supply	1,760 77
Supplies for Electrical and Heating Plants	3,447 80
Care of Teams	922 24
Carpenter Shop, material	169 46
Advertising and Printing	2,415 84
Postage	1,276 92
General Catalogue	1,323 17
Diplomas	1,135 23
School Inspection	586 84
Museum	468 08
Astronomical Observatory	98 52
Commencement Expenses	779 14
Gymnasiums and Athletic Field	1,081 82
Artesian Well, completion	200 90
Return of Students' Fees and Deposits	6,971 98
	$60,699 89
Recapitulation:	
Pay Rolls	$350,345 32
Laboratories, etc.	29,923 56
Libraries	15,429 97
Departmental Expenses (including hospital accounts)	45,908 10
New Buildings and Extraordinary Repairs	63,646 70
Miscellaneous Expenses (heating, lighting, repairs, etc.)	60,699 89
Total, as previously stated	$565,953 54

TRUST FUNDS.

The changes in the trust funds during the year may be summarized as follows:

Balance reported by Treasurer, June 30, 1900		$231,808 93
Received during the year as gifts and contributions		11,235 94
Income (interest, rents, etc.)		10,508 75
		$253,553 62
Paid for expenses and the specific objects of the several funds	$9,408 65	
Shrinkage from estimated value on sale of property belonging to the Williams Fund	254 36	
		9,663 01
Balance, June 30, 1901		$243,890 61
This sum is represented by property as follows:		
Cash in bank		$91,117 03
Investments and securities		119,896 00
Real estate (book value)		32,877 58
		$243,890 61

The following table shows the balances in the several trust funds at the beginning and the end of the fiscal year:

June 30, 1900.			June 30, 1901.	
$102	13	Philo Parsons Fund	$105	27
1,253	79	Buhl Law Library Fund	602	42
54	44	Liquid Air Plant Fund	12	40
12	81	Early Christian Literature Fund	8	08
40	94	Special Latin Fund	31	99
2	84	Detroit Archæological Fund		
		Chemical Apparatus Fund	101	00
*375	92	Women's Gymnasium Fund		
1,253	03	Music Hall Fund	1,291	58
10	00	Fund in aid of the American School at Rome	10	00
6	35	Class of 1899 Memorial Fund	6	35
	40	Frieze Memorial Fund		
8	53	Elisha Jones Classical Fellowship	8	95
113	23	Parke, Davis & Co. Fellowship		
1	56	Stearns Pharmacy Fellowship	1	56
412	47	Peter White Fellowship	422	14
*50	00	D. M. Ferry Botanical Fellowship		
503	75	James W. Scott Classical Fellowship	342	91
		Pilgrim Publishing Company Fellowship	300	00
		Gas Association Fellowship	43	28
		Nelson, Baker & Co. Fellowship		
		Biological Laboratory Scholarship	50	00
		International Club Scholarships	4,565	00
27,175	16	Seth Harrison Scholarship Fund (original principal, $25,000; principal June 30, 1901, $26,163.59)	27,874	15
495	84	Phillips Scholarships Fund	651	10
2,472	83	Morris Alumni Fellowship	2,590	75
		Charles James Hunt Fellowships		
		Margaret Smith Hunt Scholarships		
1,378	54	Loan Fund of the Class of 1894	1,450	67
150	24	Class Scholarship of 1897	160	95
270	85	Class Scholarship of 1898	279	14
30	68	Law Class of 1899 Loan Fund	31	40
101	25	Newton Van der Veer Loan Fund	155	14
756	59	Students' Lecture Association Loan Fund	966	94
		Warner Deposit	1	02
515	33	Good Government Club Prize Fund	634	71
196	48	Goethe Library Fund (principal, $318)	200	02
11,847	45	The Coyl Collection Fund (principal, $10,000)	12,299	20
24,807	90	Ford-Messer Fund (principal, $20,000)	25,424	70
15,749	57	Williams Professorship Fund	16,170	54
132,509	87	Bates Professorship Fund	134,471	66
10,000	00	Woman's Professorship Fund	10,525	00
		Hannah Elizabeth Davis Allopathic Hospital Fund (principal, $2,054.05)	2,100	59
		Treadwell Fund (principal, $2,000, on deposit with State Treasurer)		
$231,808	93†		$243,890	61

For the Regents,
GEORGE A. FARR,
HERMANN KIEFER,
ARTHUR HILL,
HENRY S. DEAN,
Finance Committee.

*Overdrawn.
†After deducting overdrafts.

STATISTICAL TABLES.

STATISTICAL TABLES.

TABLE I.

Comparative summary of statistics for the years 1900 and 1901.

Items.	1900.	1901.	Increase.	Decrease.
Districts and schools.				
Number of townships and independent districts reporting	1,281	1,282	1	
*Number of graded school districts	711	633		78
Number of ungraded school districts	6,452	6,538	86	
Total	7,163	7,171	8	
Number of township unit districts	119	123	4	
School census of graded school districts	427,966	421,459		6,507
School census of ungraded school districts	293,732	308,642	14,910	
Total	721,698	730,101	8,403	
Enrollment in graded school districts	301,275	296,052		5,223
Enrollment in ungraded school districts	203,710	213,979	10,269	
Total	504,985	510,031	5,046	
Enrollment in graded school districts:				
Resident pupils	301,275	296,052		5,223
Non-resident pupils	9,651	9,096		555
Total	310,926	305,148		5,778
Enrollment in ungraded school districts:				
Resident pupils	203,710	213,979	10,269	
Non-resident pupils	7,755	8,192	437	
Total	211,465	222,171	10,706	

* The decrease in number of graded schools reported is due to the fact, that a number of schools not legally graded *according to Sec. 4746 of the Compiled Laws*, have reported as "graded schools" in preceding years.

TABLE I.—CONTINUED.

Items.	1900.	1901.	Increase.	Decrease.
Enrollment in all school districts:				
Resident pupils	504,985	510,031	5,046	
Non-resident pupils	17,406	17,288		118
Total	522,391	527,319	4,928	
Percentage of attendance for the State	68	65		3
Number of districts reporting having maintained school	7,124	7,118		6
Average duration in months in graded schools	8.54	9.3	.76	
Average duration in months in ungraded schools	8.17	8.11		.06
Average for the State	8.19	8.21	.02	
Number of districts furnishing free text books	737	778	41	
Number of private and select schools reported	441	411		30
Number of men teachers in such schools	428	436	8	
Number of women teachers in such schools	961	900		61
Estimated number of pupils attending such schools	52,239	53,046	807	
Teachers and their employments.				
Number of teachers necessary to supply graded schools	6,815	6,712		103
Number of teachers necessary to supply ungraded schools	6,452	6,528	76	
Total	13,267	13,240		27
Number of men teachers employed in graded schools	1,073	1,001		72
Number of men teachers employed in ungraded schools	2,167	2,039		128
Total	3,240	3,040		200
Number of women teachers employed in graded schools	5,894	5,857		37
Number of women teachers employed in ungraded schools	6,790	7,157	367	
Total	12,684	13,014	330	
Whole number of teachers employed in graded schools	6,967	6,858		109
Whole number of teachers employed in ungraded schools	8,957	9,196	239	
Total	15,924	16,054	130	

TABLE I.—CONTINUED.

Items.	1900.	1901.	Increase.	Decrease.
Average number of months taught by men in graded schools	9.17	9.23	.06	
Average number of months taught by men in ungraded schools	6.30	6.51	.21	
General average	7.28	7.41	.13	
Average number of months taught by women in graded schools	9.45	9.56	.11	
Average number of months taught by women in ungraded schools	5.85	6.04	.19	
General average	7.44	7.62	.18	
Total wages of men teachers in graded schools	$697,516 09	$683,731 62		$13,784 47
Total wages of men teachers in ungraded schools	399,366 72	413,613 55	$14,246 83	
Total	$1,096,882 81	$1,097,345 17	$462 36	
Total wages of women teachers in graded schools	$2,422,957 15	$2,513,542 64	$90,585 49	
Total wages of women teachers in ungraded schools	983,709 43	1,125,891 33	142,181 90	
Total	$3,406,666 58	$3,639,433 97	$232,767 39	
Aggregate wages of all teachers in graded schools	$3,120,473 24	$3,197,274 26	$76,801 02	
Aggregate wages of all teachers in ungraded schools	1,383,076 15	1,539,504 88	156,428 73	
Total	$4,503,549 39	$4,736,779 14	$233,229 75	
Average monthly wages of men teachers in graded schools	$70 86	$73 94	$3 08	
Average monthly wages of men teachers in ungraded schools	29 03	31 12	2 09	
Average monthly wages of men teachers in all schools	$46 73	$48 68	$1 95	
Average monthly wages of women teachers in graded schools	$43 50	$44 91	$1 41	
Average monthly wages of women teachers in ungraded schools	24 78	26 04	1 26	
Average monthly wages of women teachers in all schools	$35 71	$36 68	$0 97	
Examination and certification of teachers.				
Number of public examinations held	321	313		8
Number of applicants for regular certificates	13,422	13,032		390

TABLE I.—CONTINUED.

Items.	1900.	1901.	Increase.	Decrease.
Number of first grade certificates granted	144	137	.....	7
Number of second grade certificates granted	1,971	2,312	341	.....
Number of third grade certificates granted	4,744	4,489	.....	255
Whole number regular certificates granted	6,859	6,938	79	.....
Number of indorsed first grade certificates granted	69	76	7	.....
Number of applicants for special certificates	1,055	1,007	.....	48
Number of special certificates granted	746	739	.....	7
Number holding certificates issued or indorsed by State board of education	229	390	161	.....
Number holding normal school certificates	.....	1,096	.....	.....
Number holding certificates issued by city boards of education	2,069	3,327	1,258	.....
Whole number of legally qualified teachers	15,313	15,183	.....	130
Number licensed without previous experience in teaching	1,887	2,048	161	.....
Number of applicants who had attended State normal school	734	648	.....	86
Number of applicants who had attended institutes during the year	3,796	3,608	.....	188
School property.				
Number of school houses	8,035	8,066	31	.....
Whole number of sittings in school houses	629,207	634,569	5,362	.....
Estimated value of property in graded school districts	$15,045,291 00	$15,805,263 00	$759,972 00	.....
Estimated value of property in ungraded school districts	4,292,882 00	4,599,125 00	306,243 00	.....
Total	$19,338,173 00	$20,404,388 00	$1,066,215 00	.....
Number of school houses to be built during the year	.....	186	.....	.....
Number of districts reporting dictionaries in schools	6,571	6,654	83	.....
Number of districts reporting globes in schools	5,802	5,609	.....	193
Number of districts reporting maps in schools	6,320	6,436	116	.....
Total number of U. S. flags in school districts	6,443	6,496	53	.....
Financial.				
Amount of one-mill tax received	$649,012 05	$879,568 36	$230,556 31	.....
Amount of primary school interest fund received	1,030,538 89	1,436,421 84	405,882 95	.....
Amount received from non-resident tuition	87,277 89	88,418 59	1,140 70	.....
Amount received from district taxes	4,763,966 19	5,053,225 86	289,259 67	.....
Amount received from all other sources	608,496 49	790,999 84	182,503 35	.....
Total net receipts	$7,139,291 51	$8,248,634 49	$1,109,342 98	.....
Amount received from loans	619,277 19	642,426 99	23,149 80	.....
Balance on hand from preceding year	1,311,087 10	1,340,971 76	29,884 66	.....
Total resources, including amount on hand from preceding year	$9,069,655 80	$10,232,033 24	$1,162,377 44	.....

TABLE I.—CONTINUED.

Items.	1900.	1901.	Increase.	Decrease.
Amount paid men teachers	$1,096,480 93	$1,097,158 28	$677 35	.....
Amount paid women teachers	3,405,027 85	3,638,034 01	233,006 16	.....
Amount paid for building and repairs	1,127,329 18	1,407,798 92	280,469 74	.....
Amount paid for interest on loans	120,399 62	125,767 78	5,368 16	.....
Amount paid for all other purposes	1,548,453 87	1,696,941 22	148,487 35	.....
Total net expenditures	$7,297,691 45	$7,965,700 21	$668,008 76	.....
Amount paid on bonded indebtedness	420,275 40	429,318 84	9,043 44	.....
Balance carried to next year	1,351,688 95	1,837,014 19	485,325 24	.....
Total expenditures, including balance on hand	$9,069,655 80	$10,232,033 24	$1,162,377 44	.....
Total expenditures in graded school districts	$5,390,152 59	$5,801,514 38	$411,361 79	.....
Total expenditures in ungraded school districts	1,907,538 86	2,164,185 83	256,646 97	.....
Total net expenditures	$7,297,691 45	$7,965,700 21	$668,008 76	.....
Total bonded indebtedness of districts	$2,038,934 28	$2,239,441 73	$200,507 45	.....
Total floating indebtedness of districts	206,071 66	216,379 30	10,307 64	.....
Total indebtedness	$2,245,005 94	$2,455,821 03	$210,815 09	.....
Total indebtedness in graded school districts	$2,044,679 82	$2,168,941 65	$124,261 83	.....
Total indebtedness in ungraded school districts	200,326 12	286,879 38	86,553 26	.....
Total indebtedness	$2,245,005 94	$2,455,821 03	$210,815 09	.....
Total amount due the districts	$353,638 53	$372,874 15	$19,235 62	.....
Amount received from non-resident tuition in graded school districts	$86,435 92	$85,216 29	.....	$1,219 63
Amount received from non-resident tuition in ungraded school districts	841 97	3,202 30	$2,360 33	.....
Total	$87,277 89	$88,418 59	$1,140 70	.....
School libraries.				
Number of townships reporting libraries	426	411	.....	15
Number of districts reporting libraries	3,658	3,846	188	.....
Total number of libraries	4,084	4,257	173	.....
Number of volumes in township libraries	157,177	169,110	11,933	.....
Number of volumes in district libraries	809,590	850,448	40,858	.....
Total number of volumes in all libraries	966,767	1,019,558	52,791	.....
Amount of taxes voted for township libraries	$2,080 82	$2,600 28	$519 46	.....
Amount received from county treasurers for township libraries	8,975 92	8,016 76	.....	$959 16

TABLE I.—CONCLUDED.

Items.	1900.	1901.	Increase.	Decrease.
Number of townships diverting money to general school purposes	353	297	.....	56
Number of townships forfeiting library moneys	450	517	67	.....
Amount paid for support of township libraries	$9,913 55	$11,261 46	$1,347 91	.....
Amount paid for support of district libraries	94,461 17	107,504 23	13,043 06	.....
Teachers' institutes.				
Number of State institutes held	80	87	7	.....
Number of men enrolled at such institutes	1,668	1,814	146	.....
Number of women enrolled at such institutes	5,977	7,753	1,776	.....
Total enrollment	7,645	9,567	1,922	.....
Amount received from State treasurer for such institutes	$2,646 10	$2,114 67	.....	$531 43
Amount received from county treasurer for such institutes	9,036 04	9,244 12	$208 08	.....
Total amount expended	$11,682 14	$11,358 79	.....	$323 35
Miscellaneous.				
Number of counties reporting county teachers' associations	59	63	4	.....
Amount of per diem received by examiners	$17,052 15	$18,648 45	$1,596 30	.....
Amount paid commissioners of schools	68,435 00	68,600 00	165 00	.....
Total compensation	$85,487 15	$87,248 45	$1,761 30	.....
Amount allowed by supervisors for expenses of county boards	$10,434 69	$10,442 76	$8 07	.....
Amount paid and due township inspectors for services	15,420 40	15,993 53	573 13	.....
Amount paid chairman of board of inspectors	32,069 61	34,678 72	2,609 11	.....
Total amount of primary school interest fund apportioned	$1,531,857 45	$1,729,429 60	$197,572 15	.....
Rate per capita, May apportionment	$0 50	$0 40	.....	$0 10
Rate per capita, November apportionment	1 65	2 00	$0 35	.....
Rate per capita for year	$2 15	$2 40	$0 25	.....

TABLE II.

Thirty-second and thirty-third semi-annual apportionment of the primary school interest fund.

Counties.	Apportionment made May 10, 1901, rate per capita 40 cents.			Apportionment made Nov. 10, 1901, rate per capita $2.00.		
	Whole number of children.	Number included in apportionment	Amount apportioned.	Whole number of children.	Number included in apportionment	Amount apportioned.
Totals	721,698	720,574	$288,229 60	721,674	720,600	$1,441,200 00
Alcona	1,980	1,980	* $845 75	1,980	1,980	$3,960 00
Alger	1,478	1,448	579 20	1,478	1,448	2,896 00
Allegan	11,829	11,818	4,727 20	11,829	11,818	23,636 00
Alpena	6,929	6,898	2,759 20	6,929	6,898	13,796 00
Antrim	4,875	4,875	1,950 00	4,875	4,875	9,750 00
Arenac	3,475	3,428	1,371 20	3,475	3,428	6,856 00
Baraga	1,480	1,480	592 00	1,480	1,480	2,960 00
Barry	6,246	6,246	2,498 40	6,246	6,246	12,492 00
Bay	21,675	21,675	8,670 00	21,675	21,675	43,350 00
Benzie	2,856	2,850	1,140 00	2,856	2,850	5,700 00
Berrien	13,971	13,971	5,588 40	13,971	13,971	27,942 00
Branch	6,925	6,925	2,770 00	6,925	6,925	13,850 00
Calhoun	12,328	12,328	4,931 20	12,328	12,328	24,656 00
Cass	5,622	5,605	2,242 00	5,622	5,605	11,210 00
Charlevoix	4,536	4,506	1,802 40	4,536	4,506	9,012 00
Cheboygan	5,357	5,319	2,127 60	5,357	5,357	† 10,729 20
Chippewa	5,982	5,978	2,391 20	5,982	5,978	11,956 00
Clare	2,875	2,818	1,127 20	2,875	2,818	5,636 00
Clinton	7,124	7,124	2,849 60	7,124	7,124	14,248 00
Crawford	726	675	270 00	726	675	1,350 00
Delta	6,996	6,971	2,788 40	6,996	6,971	13,942 00
Dickinson	5,719	5,719	2,287 60	5,719	5,719	11,438 00
Eaton	7,968	7,968	3,187 20	7,968	7,968	15,936 00
Emmet	4,236	4,191	1,676 40	4,236	4,191	8,382 00
Genesee	10,957	10,957	4,382 80	10,957	10,957	21,914 00
Gladwin	2,229	2,212	884 80	2,229	2,212	4,424 00
Gogebic	4,936	4,930	1,972 00	4,936	4,930	9,860 00
Grand Traverse	6,047	6,047	2,418 80	6,047	6,047	12,094 00
Gratiot	9,049	9,049	3,619 60	9,049	9,049	18,098 00
Hillsdale	7,525	7,510	3,004 00	7,525	7,510	15,020 00
Houghton	20,516	20,516	8,206 40	20,516	20,516	41,032 00
Huron	12,892	12,892	5,156 80	12,892	12,892	25,784 00
Ingham	10,076	10,076	4,030 40	10,076	10,076	20,152 00
Ionia	9,333	9,310	3,724 00	9,333	9,310	18,620 00
Iosco	3,650	3,650	1,460 00	3,650	3,650	7,300 00
Iron	2,278	2,264	905 60	2,278	2,264	4,528 00
Isabella	7,352	7,352	2,940 80	7,352	7,352	14,704 00
Jackson	11,785	11,776	4,710 40	11,785	11,776	23,552 00
Kalamazoo	10,949	10,933	4,373 20	10,949	10,933	21,866 00
Kalkaska	1,992	1,992	796 80	1,992	1,992	3,984 00
Kent	38,599	38,534	15,413 60	38,599	38,534	77,068 00
Keweenaw	849	849	339 60	849	849	1,698 00
Lake	1,523	1,512	604 80	1,523	1,512	3,024 00
Lapeer	8,496	8,496	3,398 40	8,496	8,496	16,992 00
Leelanau	3,683	3,664	1,465 60	3,683	3,664	7,328 00
Lenawee	12,771	12,771	5,108 40	12,771	12,771	25,542 00

* Includes $53.75 deficiency, May and November, 1900.
† Includes $15.20 deficiency, May, 1901.

TABLE II.—CONCLUDED.

Counties.	Apportionment made May 10, 1901, rate per capita 40 cents.			Apportionment made Nov. 10, 1901, rate per capita $2.00.		
	Whole number of children.	Number included in apportionment	Amount apportioned.	Whole number of children.	Number included in apportionment	Amount apportioned.
Livingston	5,255	5,255	$2,102 00	5,255	5,255	$10,510 00
Luce	703	703	281 20	703	703	1,406 00
Mackinac	2,444	2,410	964 00	2,420	2,386	‡ 4,730 15
Macomb	10,732	10,732	4,292 80	10,732	10,732	21,464 00
Manistee	8,979	8,973	3,589 20	8,979	8,973	17,946 00
Marquette	12,817	12,769	5,107 60	12,817	12,769	25,538 00
Mason	6,470	6,470	2,588 00	6,470	6,470	12,940 00
Mecosta	7,048	7,048	2,819 20	7,048	7,048	14,096 00
Menominee	9,186	9,186	3,674 40	9,186	9,186	18,372 00
Midland	4,917	4,877	1,950 80	4,917	4,877	9,754 00
Missaukee	2,921	2,921	1,168 40	2,921	2,921	5,842 00
Monroe	10,438	10,438	4,175 20	10,438	10,438	20,876 00
Montcalm	10,396	10,396	4,158 40	10,396	10,396	20,792 00
Montmorency	930	911	364 40	930	911	1,822 00
Muskegon	13,098	13,072	5,228 80	13,098	13,072	26,144 00
Newaygo	6,022	5,955	2,382 00	6,022	5,955	11,910 00
Oakland	11,055	11,055	4,422 00	11,055	11,055	22,110 00
Oceana	5,172	5,149	2,059 60	5,172	5,149	10,298 00
Ogemaw	2,529	2,441	976 40	2,529	2,441	4,882 00
Ontonagon	1,582	1,559	623 60	1,582	1,559	3,118 00
Osceola	5,986	5,938	2,375 20	5,986	5,938	11,876 00
Oscoda	367	362	144 80	367	362	724 00
Otsego	1,757	1,757	702 80	1,757	1,757	3,514 00
Ottawa	13,578	13,578	5,431 20	13,578	13,578	27,156 00
Presque Isle	2,917	2,888	1,155 20	2,917	2,888	5,776 00
Roscommon	445	388	155 20	445	400	§ 804 80
Saginaw	26,937	26,937	10,774 80	26,937	26,937	53,874 00
St. Clair	17,525	17,525	7,010 00	17,525	17,525	35,050 00
St. Joseph	6,213	6,213	2,485 20	6,213	6,213	12,426 00
Sanilac	12,177	12,177	4,870 80	12,177	12,177	24,354 00
Schoolcraft	2,098	2,098	839 20	2,098	2,098	4,196 00
Shiawassee	8,898	8,884	3,553 60	8,898	8,884	17,768 00
Tuscola	11,395	11,395	4,558 00	11,395	11,395	22,790 00
Van Buren	9,433	9,433	3,773 20	9,433	9,433	18,866 00
Washtenaw	12,223	12,213	4,885 20	12,223	12,213	24,426 00
Wayne	101,161	101,161	40,464 40	101,161	101,161	202,322 00
Wexford	5,219	5,219	2,087 60	5,219	5,219	10,438 00

‡ Less $41.85 overpaid May and November, 1900, and May, 1901.
§ Includes $4.80 deficiency, May, 1901.

TABLE III.

General school statistics as reported by school inspectors for the year ending September 2, 1901.

Counties.	Number of townships and cities reporting.	Whole number of school districts.	Number of districts that maintained school.	Number of graded school districts.	Number of township unit districts.	Number of children between 5 and 20 years of age.	Number of children between 5 and 20 years of age that attended school.	Whole number of days of school.	Percentage of attendance.	Number of school houses.	Whole number of sittings provided for in school houses.	Estimated value of school property.	Number of school houses to be built during ensuing year.	Average number months of school.
Totals	1,282	7,171	7,118	633	123	730,101	510,031	1,169,646	65	8,066	634,569	$20,404,388	186	8.2
Alcona	11	28	28	1	3	1,982	1,461	4,360	60	31	1,869	$22,135	3	7.4
Alger	7	7	7	3	7	1,480	1,286	1,049	88	25	1,512	26,400	2	7.5
Allegan	24	185	184	19	.....	11,854	8,982	30,435	67	194	12,757	223,515	.....	8.3
Alpena	8	17	17	1	5	6,949	3,639	2,672	71	58	4,127	106,700	4	7.8
Antrim	15	73	71	7	.....	4,952	3,916	11,261	54	78	4,633	94,345	5	7.9
Arenac	11	39	39	7	.....	3,637	2,708	6,177	57	41	3,000	45,181	1	7.9
Baraga	5	5	5	2	5	1,592	1,037	912	66	18	1,404	23,600	1	9.1
Barry	17	145	145	6	.....	6,094	4,840	23,477	70	148	8,254	185,390	1	8
Bay	16	68	67	6	1	21,517	12,343	11,433	60	88	12,623	534,008	.....	8.5
Benzie	12	50	48	6	.....	3,048	2,373	7,186	59	52	3,111	75,275	2	7.4
Berrien	23	147	147	20	.....	14,255	10,818	23,417	69	159	13,703	365,631	4	7.9
Branch	17	128	128	6	.....	6,916	5,096	21,744	67	132	7,728	200,388	2	8.5
Calhoun	23	164	163	9	.....	12,435	9,282	27,547	72	181	13,303	600,900	2	8.4
Cass	16	112	111	5	.....	5,609	4,408	18,725	68	114	6,858	146,195	.....	8.4
Charlevoix	15	67	62	5	.....	4,712	3,502	9,501	61	69	4,718	105,075	1	7.6
Cheboygan	16	56	55	3	3	5,533	4,010	8,143	59	68	4,222	109,190	9	7.4
Chippewa	14	50	48	3	7	6,366	4,475	7,171	65	72	4,972	233,413	5	7.4
Clare	16	51	51	3	.....	2,782	2,137	7,502	67	51	4,162	66,625	.....	7.8
Clinton	16	129	129	6	.....	7,105	4,966	21,424	65	130	7,825	167,577	1	8.3
Crawford	5	21	16	1	1	804	605	1,664	49	27	1,214	22,650	1	5.2
Delta	14	27	27	5	6	7,468	5,012	4,095	63	60	4,970	162,000	5	7.6
Dickinson	8	8	8	2	6	6,049	4,331	1,478	77	26	4,725	197,150	1	9.2
Eaton	18	146	146	11	.....	7,821	6,310	24,161	72	155	9,683	198,700	.....	8.2
Emmet	16	72	69	3	.....	4,470	3,091	9,592	57	72	3,961	82,090	4	6.9
Genesee	20	160	160	12	.....	11,124	8,562	27,584	69	168	12,768	371,194	1	8.6
Gladwin	13	38	36	3	2	2,486	1,754	5,927	60	38	2,087	26,515	3	8.2
Gogebic	7	7	7	2	5	4,978	3,874	1,300	85	28	4,271	207,300	4	9.2
Grand Traverse	14	66	66	6	1	6,095	4,632	10,028	67	73	5,301	196,125	1	7.5

Gratiot	18	133	133	11	.....	9,069	7,182	22,074	62	134	9,394	163,227	.....	8.2
Hillsdale	19	162	162	14	.....	7,341	5,706	26,957	69	167	9,259	233,580	1	8.3
Houghton	13	31	31	18	2	21,826	14,484	5,966	70	70	14,847	376,516	4	9.6
Huron	26	114	114	16	.....	12,873	8,493	20,410	56	115	9,110	152,765	2	9
Ingham	17	137	137	10	.....	10,414	7,680	23,685	65	151	11,157	321,675	.....	8.6
Ionia	18	143	143	12	.....	9,160	7,114	24,081	68	152	10,395	232,630	1	8.4
Iosco	13	27	27	6	1	3,637	2,485	4,178	60	35	2,921	33,991	2	7.7
Iron	8	8	8	3	8	2,490	2,123	1,375	76	33	2,218	40,194	5	8.5
Isabella	17	103	102	3	.....	7,331	5,275	16,155	61	103	6,761	100,780	4	7.9
Jackson	20	157	157	9	.....	11,890	8,393	26,388	67	171	11,544	403,225	.....	8.4
Kalamazoo	17	138	136	11	.....	11,134	8,259	22,598	72	147	11,722	635,105	1	8.3
Kalkaska	11	50	50	2	.....	1,920	1,584	7,318	63	50	2,402	39,690	1	7.3
Kent	25	207	205	20	.....	39,291	24,860	34,974	60	246	29,079	1,528,075	1	8.5
Keweenaw	5	5	5	1	3	841	624	900	73	8	930	13,000	1	9
Lake	11	42	40	3	.....	1,513	1,190	5,791	62	43	1,939	27,625	2	7.2
Lapeer	19	135	135	12	.....	8,287	6,319	23,501	63	137	9,724	182,910	1	8.7
Leelanau	11	58	58	4	.....	3,758	2,345	7,874	58	56	3,229	51,850	2	6.7
Lenawee	24	196	196	17	.....	12,673	9,440	31,314	68	211	13,620	403,705	3	7.9
Livingston	16	135	135	5	.....	5,156	4,065	23,073	69	136	7,007	129,365	.....	8.5
Luce	4	4	4	1	4	724	641	674	80	13	775	14,000	2	8.4
Mackinac	13	16	16	3	10	2,601	1,797	2,472	60	45	2,304	31,475	4	7.7
Macomb	15	115	115	14	.....	10,642	6,345	19,765	66	121	8,655	228,344	.....	8.5
Manistee	13	60	59	9	.....	9,538	6,115	9,132	61	63	7,123	186,105	3	8
Marquette	19	19	19	5	15	13,681	9,083	3,359	80	64	9,821	476,250	3	8.8
Mason	14	63	63	4	.....	6,539	4,750	9,770	66	73	5,302	154,314	2	7.7
Mecosta	17	104	104	7	.....	6,958	5,288	16,295	58	107	6,956	118,631	1	7.8
Menominee	10	35	35	4	5	9,380	6,695	5,540	66	79	6,563	223,071	2	7.9
Midland	17	74	72	5	.....	5,075	3,561	11,029	56	78	4,378	88,960	2	5.2
Missaukee	13	52	51	4	.....	3,110	2,514	7,899	65	53	2,940	49,330	1	7.7
Monroe	16	138	138	8	.....	10,260	6,883	23,137	61	142	9,334	174,320	2	8.4
Montcalm	22	140	140	12	.....	10,307	7,867	23,681	61	144	10,349	164,775	4	8.4
Montmorency	6	7	7	1	5	972	671	1,107	70	25	1,041	14,300	5	7.9
Muskegon	19	91	88	9	.....	13,038	8,824	13,644	68	113	11,885	563,807	2	7.7
Newaygo	22	118	117	5	.....	5,941	4,684	17,154	63	117	6,415	103,485	1	7.3
Oakland	26	207	207	20	.....	11,133	8,194	34,985	68	213	13,000	332,745	8	8.4
Oceana	16	89	88	4	.....	5,194	4,008	13,604	61	87	5,427	96,750	2	7.7
Ogemaw	12	41	40	3	1	2,658	1,904	6,132	47	48	2,420	32,000	2	7.6
Ontonagon	9	9	9	3	8	1,644	1,426	1,486	78	29	1,844	49,236	3	8.2
Osceola	16	92	92	6	.....	6,086	4,686	14,645	56	94	6,098	105,300	.....	7.9
Oscoda	3	12	9	.....	1	383	301	1,283	59	22	719	6,175	2	7.1
Otsego	9	41	41	3	.....	1,852	1,260	5,763	60	41	2,032	32,150	2	7
Ottawa	17	122	122	28	.....	13,657	9,845	21,233	67	131	11,951	230,050	3	8.7
Presque Isle	12	34	34	3	2	3,078	1,651	3,965	64	38	2,315	34,000	2	5.8
Roscommon	7	14	12	1	.....	498	293	1,163	68	12	538	5,805	3	4.8
Saginaw	30	160	158	13	.....	26,997	17,209	26,690	62	182	20,191	765,404	3	8.4

TABLE III.—CONCLUDED.

Counties.	Number of townships and cities reporting.	Whole number of school districts.	Number of districts that maintained school.	Number of graded school districts.	Number of township unit districts.	Number of children between 5 and 20 years of age.	Number of children between 5 and 20 years of age that attended school.	Whole number of days of school.	Percentage of attendance.	Number of school houses.	Whole number of sittings provided for in school houses.	Estimated value of school property.	Number of school houses to be built during ensuing year.	Average number months of school.
St. Clair	26	154	154	8	.....	17,375	11,730	26,481	66	175	14,374	$196,975	4	8.6
St. Joseph	18	123	123	8	.....	6,120	4,655	20,042	70	130	8,152	215,940	.....	8.3
Sanilac	27	150	150	23	.....	12,083	9,216	26,867	65	149	11,681	154,248	2	8.9
Schoolcraft	9	11	9	3	6	2,157	1,783	1,506	70	28	1,943	55,200	1	8.3
Shiawassee	18	124	124	9	.....	8,607	6,713	21,488	67	127	9,488	315,575	1	8.6
Tuscola	23	149	149	13	.....	11,430	8,341	25,811	66	153	10,616	187,450	3	8.6
Van Buren	18	163	163	16	.....	9,645	7,483	25,236	64	154	10,808	236,925	2	8.2
Washtenaw	22	167	167	8	.....	12,250	8,372	28,391	71	178	11,801	487,650	2	8.7
Wayne	22	155	155	24	.....	102,559	63,973	27,523	67	233	82,823	3,988,650	7	8.8
Wexford	17	81	80	6	.....	5,193	4,229	11,617	66	84	5,508	120,618	6	7.2

TABLE IV.

Employment of teachers as reported by school inspectors for the year ending September 2, 1901.

Counties.	Number of teachers required.		Number different teachers employed.		Aggregate number of months taught.		Total wages of teachers.			Average monthly wages.	
	Graded schools.	Ungraded schools.	Men.	Women.	Men.	Women.	Men.	Women.	Total.	Men.	Women.
Totals	6,712	6,528	3,040	13,014	22,538	99,213	$1,097,345 17	$3,639,433 97	$4,736,779 14	$48 68	$36 68
Alcona	4	27	14	25	108	173	$4,401 00	$5,360 90	$9,761 90	$40 75	$30 98
Alger	22	4	9	36	62	285	4,028 25	11,887 75	15,916 00	64 97	44 86
Allegan	86	166	74	258	488	1,680	19,748 35	45,405 73	65,154 08	40 46	27 02
Alpena	44	16	5	113	46	761	3,648 00	25,186 50	28,834 50	79 30	33 09
Antrim	41	66	31	111	198	686	9,166 02	22,450 96	31,616 98	46 29	32 72
Arenac	22	32	17	50	116	333	4,528 00	9,929 48	14,457 48	39 00	29 81
Baraga	18	3	8	19	76	174	5,210 00	7,740 00	12,950 00	68 55	44 49
Barry	44	139	63	203	420	1,154	14,782 40	30,140 90	44,923 30	35 19	26 11
Bay	193	62	32	232	304	2,189	19,825 25	84,721 41	104,546 66	65 21	38 70
Benzie	30	44	13	83	90	505	4,590 00	15,521 17	20,111 17	51 00	30 73
Berrien	155	127	84	220	635	1,773	30,672 81	60,322 44	90,995 25	48 30	34 02
Branch	59	122	68	177	427	1,206	16,077 75	32,989 25	49,067 00	37 65	27 35
Calhoun	154	155	50	323	379	2,432	20,165 15	77,420 36	97,585 51	53 20	31 91
Cass	48	107	50	131	403	964	16,102 83	29,508 42	45,611 25	39 95	30 61
Charlevoix	33	62	20	101	121	643	5,728 25	20,106 50	25,834 75	47 34	31 26
Cheboygan	36	53	29	81	215	605	10,135 00	19,559 00	29,694 00	47 13	32 32
Chippewa	52	47	26	97	191	779	10,700 00	31,334 85	42,034 85	56 02	40 22
Clare	17	48	18	82	85	431	3,522 83	11,644 55	15,167 38	41 44	27 01
Clinton	45	123	48	187	345	1,146	13,627 45	31,052 80	44,680 25	39 47	27 09
Crawford	9	20	5	27	24	140	1,183 00	4,406 80	5,589 80	49 29	31 47
Delta	55	22	16	103	128	835	8,025 00	34,636 25	42,661 25	61 91	41 48
Dickinson	65	6	10	81	85	727	6,418 02	38,269 64	44,687 66	75 50	52 64
Eaton	84	135	62	235	398	1,526	17,048 25	46,161 90	63,210 15	42 83	30 25
Emmet	36	69	19	121	109	664	5,084 50	22,181 37	27,265 87	46 64	33 40
Genesee	115	148	67	245	552	1,869	22,682 00	57,602 10	80,284 10	41 09	30 82
Gladwin	11	35	10	46	72	297	2,562 50	8,833 58	11,396 08	35 58	29 74
Gogebic	78	5	8	89	69	866	7,015 00	39,763 50	46,778 50	101 66	45 91
Grand Traverse	63	60	14	124	107	920	6,860 91	33,998 50	40,868 41	64 20	36 95
Gratiot	55	122	63	199	398	1,162	15,199 75	32,054 50	47,254 25	38 19	27 58
Hillsdale	67	148	65	228	401	1,471	15,384 05	38,175 33	53,559 38	38 36	25 95
Houghton	289	13	35	284	326	2,718	31,043 00	140,978 42	172,021 42	95 22	51 86

TABLE IV.—CONCLUDED.

Counties.	Number of teachers required.		Number different teachers employed.		Aggregate number of months taught.		Total wages of teachers.			Average monthly wages.	
	Graded schools.	Ungraded schools.	Men.	Women.	Men.	Women.	Men.	Women.	Total.	Men.	Women.
Huron	56	98	56	104	497	935	$19,557 00	$27,815 60	$47,372 60	$39 35	$29 74
Ingham	128	127	68	208	394	1,979	16,925 02	64,433 02	81,358 04	42 95	32 55
Ionia	93	131	58	210	423	1,577	16,427 08	44,935 71	61,362 79	38 83	28 49
Iosco	36	21	8	53	52	436	2,994 40	13,909 85	16,904 25	57 58	31 88
Iron	38	5	7	49	53	419	3,733 50	18,986 26	22,719 76	70 44	45 31
Isabella	31	100	28	124	213	882	8,151 50	25,210 65	33,362 15	38 26	28 58
Jackson	125	148	67	291	492	2,011	24,112 00	68,402 78	92,514 78	49 00	34 01
Kalamazoo	149	127	64	257	446	2,055	20,315 22	70,448 47	90,763 69	45 54	34 28
Kalkaska	9	48	22	65	129	315	4,887 00	9,953 50	14,840 50	37 88	31 59
Kent	456	187	99	601	780	5,319	43,743 55	254,458 39	298,201 94	56 08	47 83
Keweenaw	2	4	5	8	48	73	3,050 00	3,155 00	6,205 00	63 54	43 21
Lake	10	39	13	54	75	281	2,722 75	7,495 50	10,218 25	36 30	26 67
Lapeer	62	123	52	153	409	1,282	15,324 85	32,273 73	47,598 58	38 31	25 17
Leelanau	12	54	18	58	129	349	4,995 00	10,715 90	15,710 90	38 72	30 70
Lenawee	116	179	85	288	579	2,063	25,348 85	62,178 10	87,526 95	43 78	30 13
Livingston	36	130	63	204	365	1,114	12,535 10	26,002 94	38,538 04	34 33	23 35
Luce	12	3	2	24	20	180	1,850 00	6,749 75	8,599 75	92 50	37 49
Mackinac	17	13	17	49	111	334	4,756 25	11,215 80	15,972 05	42 84	33 58
Macomb	74	101	54	133	465	1,111	19,731 25	32,938 60	52,669 85	42 43	29 64
Manistee	103	51	22	150	199	1,198	12,173 00	43,978 84	56,151 84	61 17	36 71
Marquette	156	14	23	184	219	1,772	19,850 00	84,021 75	103,871 75	90 63	47 41
Mason	52	59	21	112	135	853	6,337 50	30,090 62	36,428 12	46 94	35 27
Mecosta	39	97	28	151	185	954	7,364 48	28,487 10	35,851 58	39 80	29 86
Menominee	81	31	21	137	182	1,146	11,466 00	46,956 15	58,422 15	63 00	40 97
Midland	27	69	19	95	149	624	5,096 15	17,690 73	22,786 88	34 26	28 35
Missaukee	16	48	22	63	155	374	6,146 25	11,351 19	17,497 44	39 65	30 35
Monroe	45	130	54	153	433	1,104	16,583 15	29,266 68	45,849 83	38 29	26 50
Montcalm	71	128	50	211	353	1,426	14,688 50	40,284 44	54,972 94	41 61	28 24
Montmorency	5	6	6	26	43	188	1,828 50	5,832 50	7,661 00	42 52	31 02
Muskegon	145	82	32	219	245	1,776	13,966 25	70,204 84	84,171 09	57 00	39 52
Newaygo	26	113	43	164	232	840	8,335 55	23,321 86	31,657 41	35 92	27 76
Oakland	112	187	61	270	499	2,173	22,613 00	60,967 82	83,580 82	45 31	28 05
Oceana	25	85	30	112	196	697	8,151 02	20,018 70	28,169 72	41 60	28 72
Ogemaw	11	38	14	45	97	288	3,699 50	8,424 67	12,124 17	38 13	29 25
Ontonagon	26	6	10	45	76	342	4,470 00	15,589 00	20,059 00	58 81	45 58
Osceola	40	86	31	135	200	872	8,721 75	26,299 95	35,021 70	43 60	30 16
Oscoda		12	4	12	20	71	630 00	1,946 00	2,576 00	31 50	27 40

Otsego	13	38	12	50	76	306	3,140 85	9,619 75	12,760 60	41 32		31 23		
Ottawa	132	94	53	188	458	1,633	19,883 90	49,587 88	69,471 88	43 41		30 36		
Presque Isle	13	31	13	35	67	221	3,674 40	6,869 50	10,543 90	42 23		31 08		
Roscommon	3	13	2	15	13	64	620 00	1,683 00	2,313 00	47 69		26 54		
Saginaw	261	147	83	360	685	3,204	38,825 00	120,429 03	159,254 03	57 67		37 54		
St. Clair	140	146	43	245	372	2,156	17,776 00	68,340 02	86,116 02	57 78		31 23		
St. Joseph	79	115	51	192	374	1,339	15,811 13	37,238 62	53,049 75	43 34		27 81		
Sanilac	85	127	76	119	660	1,009	23,806 50	26,858 25	50,164 75	35 66		26 42		
Schoolcraft	26	8	12	44	76	350	4,550 00	14,798 63	19,348 63	57 30		42 48		
Shiawassee	92	115	60	209	428	1,504	19,504 30	43,137 99	62,642 29	45 79		28 04		
Tuscola	84	126	42	194	333	1,412	14,516 66	36,406 40	50,923 06	43 59		25 78		
Van Buren	83	157	65	200	467	1,440	19,194 10	40,230 60	59,424 70	42 79		27 93		
Washtenaw	145	159	50	280	386	2,384	24,114 00	76,161 68	100,275 68	60 96		31 94		
Wayne	1,092	131	140	1,109	1,297	10,796	106,938 53	651,123 62	758,062 15	82 52		60 31		
Wexford	54	75	28	157	150	886	6,834 56	31,781 65	38,616 21	45 56		35 87		

TABLE III.

General school statistics as reported by school inspectors for the year ending September 2, 1901.

Counties.	Number of townships and cities reporting.	Whole number of school districts.	Number of districts that maintained school.	Number of graded school districts.	Number of township unit districts.	Number of children between 5 and 20 years of age.	Number of children between 5 and 20 years of age that attended school.	Whole number of days of school.	Percentage of attendance.	Number of school houses.	Whole number of sittings provided for in school houses.	Estimated value of school property.	Number of school houses to be built during ensuing year.	Average number months of school.
Totals	1,282	7,171	7,118	633	123	730,101	510,031	1,169,646	65	8,066	634,569	$20,404,388	186	8.2
Alcona	11	28	28	1	3	1,982	1,461	4,360	60	31	1,869	$22,135	3	7.4
Alger	7	7	7	3	7	1,480	1,286	1,049	88	25	1,512	26,400	2	7.5
Allegan	24	185	184	19	.....	11,854	8,982	30,435	67	194	12,757	223,515	.....	8.3
Alpena	8	17	17	1	5	6,949	3,639	2,672	71	58	4,127	106,700	4	7.8
Antrim	15	73	71	7	.....	4,952	3,916	11,261	54	78	4,633	94,345	5	7.9
Arenac	11	39	39	7	.....	3,637	2,708	6,177	57	41	3,000	45,181	1	7.9
Baraga	5	5	5	2	5	1,592	1,037	912	66	18	1,404	23,600	1	9.1
Barry	17	145	145	6	.....	6,094	4,840	23,477	70	148	8,254	185,390	1	8
Bay	16	68	67	6	1	21,517	12,343	11,433	60	88	12,623	534,008	.....	8.5
Benzie	12	50	48	6	.....	3,048	2,373	7,186	59	52	3,111	75,275	2	7.4
Berrien	23	147	147	20	.....	14,255	10,818	23,417	69	159	13,703	365,631	4	7.9
Branch	17	128	128	6	.....	6,916	5,096	21,744	67	132	7,728	200,388	2	8.5
Calhoun	23	164	163	9	.....	12,435	9,282	27,547	72	181	13,303	600,900	2	8.4
Cass	16	112	111	5	.....	5,609	4,408	18,725	68	114	6,858	146,195	.....	8.4
Charlevoix	15	67	62	5	.....	4,712	3,502	9,501	61	69	4,718	105,075	1	7.6
Cheboygan	16	56	55	3	3	5,533	4,010	8,143	59	68	4,222	109,190	9	7.4
Chippewa	14	50	48	3	7	6,366	4,475	7,171	65	72	4,972	233,413	5	7.4
Clare	16	51	51	3	.....	2,782	2,137	7,502	67	51	4,162	66,625	.....	7.8
Clinton	16	129	129	6	.....	7,105	4,966	21,424	65	130	7,825	167,577	1	8.3
Crawford	5	21	16	1	1	804	605	1,664	49	27	1,214	22,650	1	5.2
Delta	14	27	27	5	6	7,468	5,012	4,095	63	60	4,970	162,000	5	7.6
Dickinson	8	8	8	2	6	6,049	4,331	1,478	77	26	4,725	197,150	1	9.2
Eaton	18	146	146	11	.....	7,821	6,310	24,161	72	155	9,683	198,700	.....	8.2
Emmet	16	72	69	3	.....	4,470	3,091	9,592	57	72	3,961	82,090	4	6.9
Genesee	20	160	160	12	.....	11,124	8,562	27,584	69	168	12,768	371,194	1	8.6
Gladwin	13	38	36	3	2	2,486	1,754	5,927	60	38	2,087	26,515	3	8.2
Gogebic	7	7	7	2	5	4,978	3,874	1,300	85	28	4,271	207,300	4	9.2
Grand Traverse	14	66	66	6	1	6,095	4,632	10,028	67	73	5,301	196,125	1	7.5

Gratiot	18	133	133	11	.....	9,069	7,182	22,074	62	134	9,394	163,227	.....	8.2
Hillsdale	19	162	162	14	.....	7,341	5,706	26,957	69	167	9,259	233,580	1	8.3
Houghton	13	31	31	18	2	21,826	14,484	5,966	70	70	14,847	376,516	4	9.6
Huron	26	114	114	16	.....	12,873	8,493	20,410	56	115	9,110	152,765	2	9
Ingham	17	137	137	10	.....	10,414	7,680	23,686	65	151	11,157	321,675	.....	8.6
Ionia	18	143	143	12	.....	9,160	7,114	24,081	68	152	10,395	232,630	1	8.4
Iosco	13	27	27	6	1	3,637	2,485	4,178	60	35	2,921	33,991	2	7.7
Iron	8	8	8	3	8	2,490	2,123	1,375	76	33	2,218	40,194	5	8.5
Isabella	17	103	102	3	.....	7,331	5,275	16,155	61	103	6,761	100,780	4	7.9
Jackson	20	157	157	9	.....	11,890	8,393	26,388	67	171	11,544	403,225	.....	8.4
Kalamazoo	17	138	136	11	.....	11,134	8,259	22,598	72	147	11,722	635,105	1	8.3
Kalkaska	11	50	50	2	.....	1,920	1,584	7,318	63	50	2,402	39,690	1	7.3
Kent	25	207	205	20	.....	39,291	24,860	34,974	60	246	29,079	1,528,075	1	8.5
Keweenaw	5	5	5	1	3	841	624	900	73	8	930	13,000	1	9
Lake	11	42	40	3	.....	1,513	1,190	5,791	62	43	1,939	27,625	2	7.2
Lapeer	19	135	135	12	.....	8,287	6,319	23,501	63	137	9,724	182,910	1	8.7
Leelanau	11	58	58	4	.....	3,758	2,345	7,874	58	56	3,229	51,850	2	6.7
Lenawee	24	196	196	17	.....	12,673	9,440	31,314	68	211	13,620	403,705	3	7.9
Livingston	16	135	135	5	.....	5,156	4,065	23,073	69	136	7,007	129,365	.....	8.5
Luce	4	4	4	1	4	724	641	674	80	13	775	14,000	2	8.4
Mackinac	13	16	16	3	10	2,601	1,797	2,472	60	45	2,304	31,475	4	7.7
Macomb	15	115	115	14	.....	10,642	6,345	19,765	66	121	8,655	228,344	.....	8.5
Manistee	13	60	59	9	.....	9,538	6,115	9,132	61	63	7,123	186,105	3	8
Marquette	19	19	19	5	15	13,681	9,083	3,359	50	64	9,821	476,250	3	8.8
Mason	14	63	63	4	.....	6,539	4,750	9,770	66	73	5,302	154,314	2	7.7
Mecosta	17	104	104	7	.....	6,958	5,288	16,295	58	107	6,956	118,631	1	7.8
Menominee	10	35	35	4	5	9,380	6,695	5,540	66	79	6,563	223,071	2	7.9
Midland	17	74	72	5	.....	5,075	3,561	11,029	56	78	4,378	88,960	2	5.2
Missaukee	13	52	51	4	.....	3,110	2,514	7,899	65	53	2,940	49,330	1	7.7
Monroe	16	138	138	8	.....	10,260	6,883	23,137	61	142	9,334	174,320	2	8.4
Montcalm	22	140	140	12	.....	10,307	7,867	23,681	61	144	10,349	164,775	4	8.4
Montmorency	6	7	7	1	5	972	671	1,107	70	25	1,041	14,300	5	7.9
Muskegon	19	91	88	9	.....	13,038	8,824	13,644	68	113	11,885	563,807	2	7.7
Newaygo	22	118	117	5	.....	5,941	4,684	17,154	63	117	6,415	103,485	1	7.3
Oakland	26	207	207	20	.....	11,133	8,194	34,985	68	213	13,000	332,745	8	8.4
Oceana	16	89	88	4	.....	5,194	4,008	13,604	61	87	5,427	96,750	2	7.7
Ogemaw	12	41	40	3	1	2,658	1,904	6,132	47	48	2,420	32,000	2	7.6
Ontonagon	9	9	9	3	8	1,644	1,426	1,486	78	29	1,844	49,236	3	8.2
Osceola	16	92	92	6	.....	6,086	4,686	14,645	56	94	6,098	105,300	.....	7.9
Oscoda	3	12	9	.....	1	383	301	1,283	59	22	719	6,175	2	7.1
Otsego	9	41	41	3	.....	1,852	1,260	5,763	60	41	2,032	32,150	2	7
Ottawa	17	122	122	28	.....	13,657	9,845	21,233	67	131	11,951	230,050	3	8.7
Presque Isle	12	34	34	3	2	3,078	1,651	3,965	64	38	2,315	34,000	2	5.8
Roscommon	7	14	12	1	.....	498	293	1,163	68	12	538	5,805	3	4.8
Saginaw	30	160	158	13	.....	26,997	17,209	26,690	62	182	20,191	765,404	3	8.4

TABLE III.—Concluded.

Counties.	Number of townships and cities reporting.	Whole number of school districts.	Number of districts that maintained school.	Number of graded school districts.	Number of township unit districts.	Number of children between 5 and 20 years of age.	Number of children between 5 and 20 years of age that attended school.	Whole number of days of school.	Percentage of attendance.	Number of school houses.	Whole number of sittings provided for in school houses.	Estimated value of school property.	Number of school houses to be built during ensuing year.	Average number months of school.
St. Clair	26	154	154	8	.....	17,375	11,730	26,481	66	175	14,374	$495,975	4	8.5
St. Joseph	18	123	123	8	.....	6,120	4,655	20,542	70	130	8,152	215,940	.....	8.3
Sanilac	27	150	150	23	.....	12,093	9,216	26,867	55	149	11,681	154,248	2	8.9
Schoolcraft	9	11	9	3	6	2,157	1,783	1,506	70	28	1,943	55,200	1	8.3
Shiawassee	18	124	124	9	.....	8,607	6,713	21,488	67	127	9,468	315,575	1	8.6
Tuscola	23	149	149	13	.....	11,430	8,341	25,811	55	153	10,616	187,450	3	8.6
Van Buren	18	153	153	16	.....	9,645	7,483	25,236	64	154	10,808	236,925	2	8.2
Washtenaw	22	167	167	8	.....	12,259	8,332	28,391	71	178	11,801	487,850	7	8.7
Wayne	22	155	155	24	.....	102,559	63,973	27,523	67	233	52,823	3,988,650	7	8.8
Wexford	17	81	80	6	.....	5,193	4,239	11,617	66	84	5,508	120,618	6	7.2

TABLE IV.

Employment of teachers as reported by school inspectors for the year ending September 2, 1901.

Counties.	Number of teachers required.		Number different teachers employed.		Aggregate number of months taught.		Total wages of teachers.			Average monthly wages.	
	Graded schools.	Ungraded schools.	Men.	Women.	Men.	Women.	Men.	Women.	Total.	Men.	Women.
Totals	6,712	6,528	3,040	13,014	22,538	99,213	$1,097,345 17	$3,639,433 97	$4,736,779 14	$48 68	$36 68
Alcona	4	27	14	25	108	173	$4,401 00	$5,360 90	$9,761 90	$40 75	$30 98
Alger	22	4	9	36	62	265	4,028 25	11,887 75	15,916 00	64 97	44 86
Allegan	86	166	74	258	488	1,680	19,748 35	45,405 73	65,154 08	40 46	27 02
Alpena	44	16	5	113	46	761	3,648 00	25,186 50	28,834 50	79 30	33 09
Antrim	41	66	31	111	198	686	9,166 02	22,450 96	31,616 98	46 29	32 72
Arenac	22	32	17	50	116	333	4,528 00	9,929 48	14,457 48	39 00	29 81
Baraga	18	3	8	19	76	174	5,210 00	7,740 00	12,950 00	68 55	44 49
Barry	44	139	63	203	420	1,154	14,782 40	30,140 90	44,923 30	35 19	26 11
Bay	193	62	32	232	304	2,189	19,825 25	84,721 41	104,546 66	65 21	38 70
Benzie	30	44	13	83	90	505	4,590 00	15,521 17	20,111 17	51 00	30 73
Berrien	155	127	84	220	635	1,773	30,672 81	60,322 44	90,995 25	48 30	34 02
Branch	59	122	68	177	427	1,206	16,077 75	32,989 25	49,067 00	37 65	27 35
Calhoun	154	155	50	323	379	2,432	20,165 15	77,420 36	97,585 51	53 20	31 91
Cass	48	107	50	131	403	964	16,102 83	29,508 42	45,611 25	39 95	30 61
Charlevoix	33	62	20	101	121	643	5,728 25	20,106 50	25,834 75	47 34	31 26
Cheboygan	36	53	29	81	215	605	10,135 00	19,559 00	29,694 00	47 13	32 32
Chippewa	52	47	26	97	191	779	10,700 00	31,334 85	42,034 85	56 02	40 22
Clare	17	48	18	82	85	431	3,522 83	11,644 55	15,167 38	41 44	27 01
Clinton	45	123	48	187	345	1,146	13,627 45	31,052 80	44,680 25	39 47	27 09
Crawford	9	20	5	27	24	140	1,183 00	4,406 80	5,589 80	49 29	31 47
Delta	55	22	16	103	128	835	8,025 00	34,636 25	42,661 25	61 91	41 48
Dickinson	65	6	10	81	85	727	6,418 02	38,269 64	44,687 66	75 50	52 64
Eaton	84	135	62	235	398	1,526	17,048 25	46,161 90	63,210 15	42 83	30 25
Emmet	36	69	19	121	109	664	5,084 50	22,181 37	27,265 87	46 64	33 40
Genesee	115	148	67	245	552	1,969	22,682 00	57,602 10	80,284 10	41 09	30 82
Gladwin	11	35	10	46	72	297	2,562 50	8,833 58	11,396 08	35 58	29 74
Gogebic	78	5	8	89	69	866	7,015 00	39,763 50	46,778 50	101 66	45 91
Grand Traverse	63	60	14	124	107	920	6,869 91	33,998 50	40,868 41	64 20	36 95
Gratiot	55	122	63	199	398	1,162	15,199 75	32,054 50	47,254 25	38 19	27 58
Hillsdale	67	148	65	228	401	1,471	15,384 05	38,175 33	53,559 38	38 36	25 95
Houghton	289	13	35	284	326	2,718	31,043 00	140,978 42	172,021 42	95 22	51 86

TABLE IV.—Concluded.

Counties.	Number of teachers required.		Number different teachers employed.		Aggregate number of months taught.		Total wages of teachers.			Average monthly wages.	
	Graded schools.	Ungraded schools.	Men.	Women.	Men.	Women.	Men.	Women.	Total.	Men.	Women.
Huron	56	98	56	104	497	935	$19,557 00	$27,815 60	$47,372 60	$39 35	$29 74
Ingham	128	127	68	298	394	1,979	16,925 02	64,433 02	81,358 04	42 95	32 55
Ionia	93	131	58	210	423	1,577	16,427 08	44,935 71	61,362 79	38 83	28 49
Iosco	36	21	8	53	52	436	2,094 40	13,309 85	16,904 25	57 58	31 88
Iron	38	5	7	49	53	419	3,733 50	18,986 26	22,719 76	70 44	45 31
Isabella	31	100	28	124	213	882	8,151 50	25,210 65	33,362 15	38 26	28 58
Jackson	125	148	67	291	492	2,011	24,112 00	68,402 78	92,514 78	49 00	34 01
Kalamazoo	149	127	64	257	446	2,055	20,315 22	70,448 47	90,763 69	45 54	34 28
Kalkaska	9	48	22	65	129	315	4,887 00	9,953 50	14,840 50	37 88	31 59
Kent	456	187	99	601	780	5,319	43,743 55	254,458 39	298,201 94	56 08	47 83
Keweenaw	2	4	5	8	48	73	3,050 00	3,155 00	6,205 00	63 54	43 21
Lake	10	39	13	54	75	281	2,722 75	7,495 50	10,218 25	36 30	26 67
Lapeer	62	123	52	153	400	1,282	15,324 85	32,273 73	47,598 58	38 31	25 17
Leelanau	12	54	18	58	129	349	4,995 00	10,715 90	15,710 90	38 72	30 70
Lenawee	116	179	85	288	579	2,063	25,348 85	62,178 10	87,526 95	43 78	30 13
Livingston	36	130	63	204	365	1,114	12,535 10	26,002 94	38,538 04	34 33	23 35
Luce	12	3	2	24	20	180	1,850 00	6,749 75	8,599 75	92 50	37 49
Mackinac	17	13	17	49	111	334	4,756 25	11,215 80	15,972 05	42 84	33 58
Macomb	74	101	54	133	465	1,111	19,731 25	32,938 60	52,669 85	42 43	29 64
Manistee	103	51	22	150	199	1,198	12,173 00	43,978 84	56,151 84	61 17	36 71
Marquette	156	14	23	184	219	1,772	19,850 00	84,021 75	103,871 75	90 63	47 41
Mason	52	59	21	112	135	853	6,337 50	30,090 62	36,428 12	46 94	35 27
Mecosta	39	97	28	151	185	954	7,364 48	28,487 10	35,851 58	39 80	29 86
Menominee	81	31	21	137	182	1,146	11,406 00	46,956 15	58,422 15	63 00	40 97
Midland	27	69	19	95	149	624	5,096 15	17,690 73	22,786 88	34 26	28 35
Missaukee	16	48	22	63	155	374	6,146 25	11,351 19	17,497 44	39 65	30 35
Monroe	45	130	54	153	433	1,104	16,583 15	29,266 68	45,849 83	38 29	26 50
Montcalm	71	128	50	211	353	1,426	14,688 50	40,284 44	54,972 94	41 61	28 24
Montmorency	5	6	6	26	43	188	1,828 50	5,832 50	7,661 00	42 52	31 02
Muskegon	145	82	32	219	245	1,776	13,966 25	70,204 84	84,171 09	57 00	39 52
Newaygo	26	113	43	164	232	840	8,335 55	23,321 86	31,657 41	35 92	27 76
Oakland	112	187	61	270	499	2,173	22,613 00	60,967 82	83,580 82	45 31	28 05
Oceana	25	85	30	112	196	697	8,151 02	20,018 70	28,169 72	41 60	28 72
Ogemaw	11	38	14	45	97	288	3,699 50	8,424 67	12,124 17	38 13	29 25
Ontonagon	26	6	10	45	76	342	4,470 00	15,589 00	20,059 00	58 81	45 58
Osceola	40	86	31	135	200	872	8,721 75	26,299 95	35,021 70	43 60	30 16
Oscoda		12	4	12	20	71	630 00	1,946 00	2,576 00	31 50	27 40

Otsego	13	38	12	50	76	306	3,140 85	9,619 75	12,760 60	41 32	31 23			
Ottawa	132	94	53	188	458	1,633	19,883 90	49,587 88	69,471 88	43 41	30 36			
Presque Isle	13	31	13	35	87	221	3,674 40	6,869 50	10,543 90	42 23	31 04			
Roscommon	3	13	2	15	13	64	620 00	1,693 00	2,313 00	47 69	26 54			
Saginaw	261	147	83	360	685	3,204	38,825 00	120,429 03	159,254 03	57 67	37 58			
St. Clair	140	146	43	245	372	2,156	17,776 00	68,340 02	86,116 02	57 78	31 23			
St. Joseph	79	115	51	192	374	1,339	15,811 13	37,238 62	53,049 75	43 34	27 81			
Sanilac	55	127	76	119	659	1,009	23,806 50	26,858 25	50,164 75	35 66	26 42			
Schoolcraft	26	8	12	44	78	350	4,650 00	14,798 63	19,348 63	57 30	42 48			
Shiawassee	92	116	60	209	426	1,504	19,504 30	43,137 99	62,642 29	46 79	28 68			
Tuscola	58	126	42	194	333	1,412	14,516 66	36,406 40	50,923 06	43 59	25 78			
Van Buren	83	137	65	200	467	1,440	19,194 10	40,230 60	59,424 70	42 79	27 93			
Washtenaw	145	159	50	280	366	2,384	24,114 00	76,161 68	100,275 68	60 96	31 94			
Wayne	1,092	131	140	1,109	1,297	10,796	106,938 53	651,123 62	758,062 15	82 52	60 31			
Wexford	54	75	28	157	150	886	6,854 56	31,791 65	38,646 21	45 56	35 87			

TABLE V.

Resources of school districts as reported by school inspectors for year ending September 2, 1901.

Counties.	Ordinary receipts.							Received from loans.	Money on hand Sept. 3, 1900.	Total resources including amount on hand and loans.
	One-mill tax.	Primary school interest fund.	Library moneys.	Tuition of non-resident pupils.	District taxes for all purposes.	Raised from all other sources.	Total net receipts.			
Totals	$879,568 36	$1,436,421 84	$120,871 61	$88,418 59	$5,053,225 86	$670,128 23	$8,248,634 49	$642,426 99	$1,340,971 76	$10,232,033 24
Alcona	$387 69	$3,997 57	$6 70	$10 89	$7,851 49	$2,113 52	$14,367 86	$1,900 00	$4,781 41	$21,049 27
Alger	2,880 16	3,131 84	10 37	.....	23,813 66	508 94	30,344 97	.....	7,523 14	37,868 11
Allegan	17,553 42	24,488 39	2,654 43	2,380 40	62,015 11	2,027 95	111,119 70	2,916 87	21,278 10	135,314 67
Alpena	223 59	14,494 10	190 58	23 00	32,196 52	873 77	48,001 56	.....	4,171 71	52,173 27
Antrim	3,255 95	8,951 65	431 60	173 90	39,964 70	4,949 22	57,727 02	2,218 06	10,793 65	70,738 73
Arenac	727 07	6,720 70	89 74	23 50	16,439 82	1,226 38	25,227 21	1,300 00	8,641 05	35,168 26
Baraga	1,839 27	3,006 84	124 00	.....	18,187 65	1,023 38	24,181 14	.....	6,112 28	30,293 42
Barry	10,501 55	12,812 51	1,410 31	1,217 47	37,911 50	761 28	64,614 62	4,324 58	9,833 36	78,772 56
Bay	5,086 64	40,572 68	284 72	1,055 30	119,137 42	3,515 29	169,652 05	17,075 62	39,381 66	226,109 33
Benzie	2,429 74	5,475 90	90 67	119 53	25,063 34	360 47	33,539 65	2,912 78	4,004 36	40,456 79
Berrien	14,127 64	28,378 62	1,684 28	2,532 08	100,259 29	4,684 52	151,666 43	24,032 64	29,259 13	204,958 20
Branch	15,685 12	14,109 39	1,668 71	1,855 21	42,576 40	1,101 50	76,996 33	10,522 43	19,967 01	107,485 77
Calhoun	18,907 45	24,181 40	1,437 87	2,603 42	119,411 30	2,391 59	168,933 03	26,871 80	16,929 98	212,734 81
Cass	11,362 42	11,423 89	506 50	1,684 70	35,396 50	1,760 12	62,134 13	8,522 04	11,287 44	81,943 61
Charlevoix	2,813 93	8,527 66	114 86	250 93	29,316 34	1,537 59	42,561 31	2,116 77	9,879 58	54,557 66
Cheboygan	2,985 40	10,823 76	205 55	125 10	34,198 36	7,132 72	55,470 89	8,912 69	9,275 38	73,658 96
Chippewa	7,839 94	10,741 12	54 45	17 05	71,935 40	2,473 18	93,061 14	26,767 21	5,200 44	125,028 79
Clare	461 56	5,493 69	32 32	118 07	19,403 50	15,962 15	41,471 29	9,594 75	9,530 83	60,596 87
Clinton	15,010 83	14,817 85	1,034 33	1,941 78	33,084 68	599 54	66,489 01	922 30	13,447 94	80,859 25
Crawford	138 19	1,264 70	13 65	.....	6,788 48	438 06	8,643 08	.....	5,686 98	14,330 06
Delta	3,209 03	13,000 50	384 90	271 47	48,754 54	8,981 28	74,601 72	18,300 54	8,819 50	101,721 76
Dickinson	2,438 90	10,983 85	503 10	.....	84,272 37	237 00	98,435 22	22,424 15	9,810 29	130,669 66
Eaton	16,505 37	16,450 71	2,192 62	2,947 34	49,462 41	5,081 80	92,640 25	2,402 54	15,789 69	110,832 48
Emmet	1,469 20	6,993 78	67 06	654 85	34,217 58	1,567 99	44,970 46	1,688 23	10,037 38	56,696 07
Genesee	23,947 27	22,297 59	2,308 68	3,267 36	76,484 79	2,328 08	130,633 77	3,261 72	13,536 62	147,432 11
Gladwin	780 84	4,293 90	12 24	184 00	11,807 64	1,449 74	18,528 36	1,348 44	5,630 30	25,507 10
Gogebic	8,549 94	7,174 23	83 50	375 00	75,812 89	3,222 63	95,218 19	12,000 00	21,143 41	128,361 60
Grand Traverse	7,492 57	12,394 07	274 19	911 99	47,554 22	913 69	69,540 73	2,355 85	26,811 67	98,708 25
Gratiot	10,960 24	17,552 71	668 77	1,203 00	39,392 01	3,058 05	72,834 78	9,754 86	14,944 01	97,533 65
Hillsdale	16,668 58	15,435 43	1,202 01	2,511 95	39,361 96	1,224 24	76,404 17	21,841 27	10,882 03	109,127 47
Houghton	80,844 35	38,762 25	2,405 40	2,341 05	209,537 29	19,348 35	353,238 69	15,950 00	92,805 39	461,994 08
Huron	10,076 42	25,851 63	154 94	454 67	41,496 97	1,222 45	79,257 08	3,207 00	16,644 17	99,108 25

Ingham	22,099 34	21,688 23	3,155 08	2,189 87	80,722 84	1,241 77	131,097 13	2,704 52	34,051 79	167,853 44
Ionia	15,466 52	18,641 07	1,341 57	2,760 44	52,429 37	4,019 55	94,658 52	2,292 00	24,636 40	121,586 92
Iosco	737 18	6,791 25	9 00	12 00	16,210 70	763 25	24,523 38	750 00	6,402 01	31,675 39
Iron	787 12	4,324 00	610 69	48 24	40,841 10	4,373 36	50,982 51	12,300 49	2,405 01	66,288 01
Isabella	5,437 10	14,938 57	473 96	201 50	28,124 64	14,777 60	63,953 37	7,088 22	9,946 08	80,987 67
Jackson	24,145 22	24,076 73	1,807 07	2,134 76	86,529 88	4,496 06	143,189 72	2,409 20	13,617 44	159,216 36
Kalamazoo	23,987 61	21,724 84	1,383 88	2,572 68	94,450 25	565 25	144,684 51	20,852 98	24,383 66	189,921 15
Kalkaska	2,462 36	3,709 17	166 11	66 50	15,729 64	1,901 35	24,035 13	1,181 87	5,739 91	30,956 91
Kent	64,929 78	78,513 31	2,760 55	2,886 82	302,665 82	9,315 71	461,071 99	12,737 00	111,342 72	585,151 71
Keweenaw	2,720 76	1,535 33	70 11	.....	6,940 96	94 48	11,361 64	.....	6,193 59	17,555 23
Lake	518 31	2,913 73	49 96	7 00	11,387 96	1,305 05	16,182 01	109 55	6,014 80	22,306 36
Lapeer	12,655 90	17,676 66	496 80	2,196 00	39,616 97	606 70	73,249 03	5,240 57	12,121 13	90,610 73
Leelanau	1,785 49	7,160 07	635 71	111 89	14,734 60	1,512 57	25,940 33	1,465 00	6,279 92	33,685 25
Lenawee	28,364 41	26,509 93	1,560 10	3,518 36	65,399 30	1,316 21	126,668 31	3,047 45	23,546 84	153,262 60
Livingston	12,867 47	10,615 59	793 82	1,597 38	27,147 00	755 18	53,776 44	2,514 27	7,675 59	63,966 30
Luce	1,130 06	1,439 42	12 92	.....	12,106 06	1,928 50	16,616 96	.....	8,022 55	24,639 51
Mackinac	2,554 87	4,628 88	367 70	5 50	17,891 03	4,923 09	30,371 07	.....	5,411 98	35,783 05
Macomb	21,273 41	21,856 25	1,140 89	2,024 70	37,197 68	672 17	84,165 10	35,095 24	16,985 97	136,156 31
Manistee	13,399 25	19,116 64	503 53	631 74	57,379 53	1,625 04	92,645 71	1,244 70	10,388 08	104,278 49
Marquette	19,468 05	23,523 14	1,399 63	22 64	157,380 34	57,672 90	259,466 70	34,077 43	51,262 74	344,806 87
Mason	5,369 14	12,764 36	1,868 30	377 80	38,387 73	477 81	59,245 14	1,278 00	13,727 21	74,250 35
Mecosta	1,812 52	14,268 79	537 76	263 85	31,318 52	4,854 23	53,055 67	108 10	22,145 99	75,309 76
Menominee	8,489 10	18,213 62	263 42	358 14	78,750 46	5,194 93	111,278 67	495 00	7,695 74	119,469 41
Midland	1,881 74	10,079 42	362 61	85 31	21,267 46	2,801 67	36,478 21	1,892 18	13,217 24	51,587 63
Missaukee	1,224 23	5,604 68	241 83	.....	22,467 09	1,307 70	30,845 53	985 41	7,539 06	39,370 00
Monroe	17,067 45	21,565 86	1,592 09	1,181 83	26,652 88	346 27	68,406 38	5,652 80	10,428 89	84,488 07
Montcalm	7,798 93	21,354 52	494 17	1,795 92	45,603 33	2,381 70	79,428 57	4,744 89	19,499 65	103,673 11
Montmorency	486 32	1,752 27	94 32	.....	9,232 71	2,661 68	14,227 30	391 00	2,703 66	17,321 96
Muskegon	10,299 00	25,406 57	202 12	428 87	79,302 13	19,353 01	134,991 70	21,974 00	14,289 84	171,255 54
Newaygo	4,461 83	11,965 62	35 49	288 88	29,674 47	2,541 83	48,968 12	1,925 07	10,991 86	61,885 05
Oakland	28,307 49	21,726 98	2,493 22	3,640 14	62,520 65	3,286 01	121,974 49	6,039 23	18,092 69	146,106 41
Oceana	3,706 54	10,644 40	381 27	280 97	25,682 66	989 96	41,685 80	955 49	11,177 07	53,818 36
Ogemaw	427 59	4,558 69	212 67	14 38	13,696 85	3,391 21	22,301 39	1,200 00	6,683 41	30,184 80
Ontonagon	1,651 61	2,750 48	186 73	.....	38,284 47	12,867 42	55,740 71	12,065 18	5,058 26	72,864 15
Osceola	3,684 23	11,553 16	516 96	384 78	34,363 69	777 11	51,279 93	702 07	11,414 19	63,396 19
Oscoda	86 37	517 32	33 64	.....	3,230 50	209 30	4,077 13	24 29	741 14	4,842 56
Otsego	1,027 20	3,480 26	404 27	52 05	15,659 19	871 16	21,494 13	530 50	5,784 85	27,809 48
Ottawa	14,136 20	27,858 09	1,213 55	588 85	65,353 98	30,001 08	139,151 75	3,472 30	18,222 42	160,846 47
Presque Isle	1,461 12	4,965 41	31 44	7 00	14,446 23	149 97	21,061 17	3,418 94	5,488 79	29,968 90
Roscommon	187 62	773 46	.....	5 00	2,088 77	224 14	3,278 99	144 15	1,044 39	4,467 53
Saginaw	11,341 11	55,936 45	1,501 41	1,423 64	179,006 61	6,433 07	255,642 29	2,480 31	30,768 51	288,891 11
St. Clair	18,534 64	33,052 37	1,427 21	968 73	88,929 97	1,465 74	144,378 66	27,920 76	19,431 94	191,731 36
St. Joseph	12,617 78	12,074 57	1,028 54	1,784 08	46,535 11	856 94	74,897 02	4,249 52	7,828 50	86,975 04
Sanilac	10,014 12	25,416 25	522 05	598 50	43,093 67	2,167 63	81,812 22	8,191 47	16,521 00	106,524 69
Schoolcraft	533 91	4,232 81	.....	116 35	33,793 21	1,227 51	39,903 79	3,292 81	6,151 14	49,347 74
Shiawassee	15,635 25	18,324 60	648 67	1,870 62	68,058 44	46,150 21	150,687 79	25,287 60	12,840 77	188,816 16

TABLE V.—CONCLUDED.

Counties.	Ordinary receipts.							Received from loans.	Money on hand Sept. 3, 1900.	Total resources including amount on hand and loans.
	One-mill tax.	Primary school interest fund.	Library moneys.	Tuition of non-resident pupils.	District taxes for all purposes.	Raised from all other sources.	Total net receipts.			
Tuscola	$14,938 91	$22,640 96	$746 83	$1,501 41	$41,847 36	$1,692 76	$83,368 23	$2,518 73	$17,907 58	$103,794 54
Van Buren	13,213 95	18,821 13	2,067 59	3,533 40	47,885 06	2,279 10	87,800 22	4,107 71	16,241 68	108,149 61
Washtenaw	34,193 68	24,059 52	886 90	9,310 20	88,229 16	2,881 43	159,560 89	28,294 08	23,717 30	211,572 27
Wayne	37,436 10	203,796 97	59,650 78	3,073 84	911,741 76	291,425 60	1,507,125 05	52,668 02	89,438 83	1,649,231 90
Wexford	3,602 20	10,274 55	183 64	243 02	48,120 95	917 79	63,342 15	4,351 75	13,910 06	81,603 96

TABLE VI.

Expenditures of school districts as reported by school inspectors for the year ending September 2, 1901.

Counties.	Ordinary expenditures for maintaining the schools.							Paid on indebtedness (principal).	Amount on hand Sept. 2, 1901.	Total expenditures, including amount on hand and paid on indebtedness.
	Paid male teachers.	Paid female teachers.	Paid for building, repairs and site.	Paid for books and care of library.	Paid interest on loans.	Paid for all other purposes.	Total net expenses.			
Totals	$1,097,158 28	$3,638,034 01	$1,407,796 92	$107,504 23	$125,767 78	$1,589,436 99	$7,965,700 21	$429,318 84	$1,837,014 19	$10,232,033 24
Alcona	$4,401 00	$5,237 69	$3,207 28	.....	$75 91	$2,331 90	$15,253 78	$113 11	$5,682 38	$21,049 27
Alger	4,028 25	11,707 75	888 03	$18 88	472 26	6,164 28	23,279 47	2,123 00	12,465 64	37,868 11
Allegan	19,748 35	45,405 73	9,365 14	1,752 34	1,256 31	19,468 12	96,995 99	8,184 82	30,133 86	135,314 67
Alpena	3,648 00	25,157 10	4,075 79	646 44	142 94	7,325 14	40,995 41	733 36	10,444 50	52,173 27
Antrim	9,166 02	22,438 96	8,715 67	65 74	969 01	8,162 43	49,507 83	5,742 37	15,488 53	70,738 73
Arenac	4,528 00	9,888 62	5,282 94	107 75	698 40	5,049 75	25,555 46	1,054 05	8,558 75	35,168 26
Baraga	5,210 00	7,740 00	1,862 27	152 89	.....	5,934 19	20,899 35	950 00	8,444 07	30,293 42
Barry	14,782 40	30,140 90	3,945 59	717 75	208 44	8,278 73	58,073 81	5,350 45	15,348 30	78,772 56
Bay	19,825 25	84,676 41	25,423 71	294 95	6,874 66	36,966 23	174,061 21	6,960 57	45,087 55	226,109 33
Benzie	4,590 00	15,521 17	2,459 79	121 20	341 67	4,681 35	27,715 18	4,141 90	8,599 71	40,456 79
Berrien	30,672 81	60,302 92	22,071 05	1,734 84	2,482 02	33,160 27	150,423 91	8,610 64	45,923 65	204,958 20
Branch	16,077 75	32,989 25	9,074 57	195 01	352 91	11,458 26	70,147 75	6,686 32	30,651 70	107,485 77
Calhoun	20,165 15	77,420 36	48,202 34	1,627 55	781 12	32,126 58	180,323 10	3,644 01	28,767 70	212,734 81
Cass	16,102 83	29,508 42	3,589 70	272 08	478 53	9,880 27	59,831 83	9,629 77	12,482 01	81,943 61
Charlevoix	5,728 25	20,072 50	7,470 38	25 55	1,455 66	7,005 71	41,758 05	2,445 75	10,353 86	54,557 66
Cheboygan	10,211 67	19,529 00	5,479 54	210 43	2,291 26	18,110 32	55,832 22	2,317 49	15,509 25	73,658 96
Chippewa	10,680 00	31,277 10	20,755 80	123 83	3,798 69	34,256 54	100,891 96	4,702 89	19,433 94	125,028 79
Clare	3,565 83	11,644 55	21,294 74	33 37	638 92	4,791 72	41,899 13	6,964 77	11,732 97	60,596 87
Clinton	13,627 45	31,052 80	4,972 99	314 22	104 01	9,950 72	60,022 19	1,754 36	19,082 70	80,859 25
Crawford	1,183 00	4,241 80	580 35	112 34	....	1,700 32	7,817 81	.....	6,512 25	14,330 06
Delta	7,425 00	34,606 25	19,080 47	202 78	3,119 61	19,717 24	84,151 35	2,581 32	14,989 09	101,721 76
Dickinson	6,418 02	38,289 64	26,443 38	698 38	3,255 88	43,319 23	118,404 53	4,362 45	7,902 68	130,669 66
Eaton	17,048 25	46,140 90	8,180 62	432 95	301 57	16,627 79	88,732 38	4,067 10	18,033 00	110,832 48
Emmet	5,084 50	22,181 37	8,080 34	282 38	1,040 25	6,347 78	43,016 62	3,019 71	10,659 74	56,696 07
Genesee	22,682 00	57,602 10	8,481 64	1,171 48	1,017 75	28,556 61	119,491 58	8,239 77	19,700 76	147,432 11
Gladwin	2,600 50	8,914 58	3,139 80	26 40	220 72	2,979 96	17,881 96	1,630 62	5,994 52	25,507 10
Gogebic	7,015 00	39,763 50	13,556 16	982 61	2,814 49	29,969 06	94,100 82	5,000 00	29,260 78	128,361 60
Grand Traverse	6,869 91	33,998 50	4,663 68	126 83	2,137 68	20,706 15	68,502 75	1,506 93	28,698 57	98,708 25
Gratiot	15,199 75	32,054 50	5,063 81	543 26	1,850 20	11,340 83	66,052 35	6,985 00	24,496 30	97,533 65

TABLE VI.—Concluded.

Counties.	Ordinary expenditures for maintaining the schools.							Paid on indebtedness (principal).	Amount on hand Sept. 2, 1901.	Total expenditures, including amount on hand and paid on indebtedness.
	Paid male teachers.	Paid female teachers.	Paid for building, repairs and site.	Paid for books and care of library.	Paid interest on loans.	Paid for all other purposes.	Total net expenses.			
Hillsdale	$15,384 05	$38,182 41	$14,903 89	$497 71	$137 33	$11,155 53	$80,260 92	$7,349 49	$21,517 06	$109,127 47
Houghton	31,043 00	140,978 42	47,744 57	2,447 79	4,932 34	71,778 27	298,924 39	27,330 90	135,738 79	461,994 08
Huron	19,582 00	27,815 60	6,987 78	217 10	2,393 43	11,817 62	68,813 53	6,912 71	23,382 01	99,108 25
Ingham	16,925 02	64,433 02	8,124 60	1,303 56	1,575 04	25,706 50	118,066 74	11,107 70	38,679 00	167,853 44
Ionia	16,427 08	44,941 71	6,573 07	344 79	324 27	19,032 18	87,643 10	4,889 07	29,054 75	121,586 92
Iosco	3,110 12	13,815 21	1,904 04	16 27	20 20	4,795 67	23,661 51	153 79	7,860 09	31,675 39
Iron	3,733 50	18,986 26	4,481 48	484 87	2,302 48	14,591 09	44,579 68	14,900 00	6,808 33	66,288 01
Isabella	8,151 50	25,210 65	4,342 31	74 97	1,374 72	11,027 27	50,181 42	14,018 04	16,788 21	80,987 67
Jackson	24,112 00	68,402 78	6,327 00	688 05	2,027 61	23,706 38	125,263 82	10,514 92	23,437 62	159,216 36
Kalamazoo	20,315 22	70,448 47	9,522 78	4,253 89	929 93	44,197 32	149,667 61	7,314 22	32,939 32	189,921 15
Kalkaska	4,915 00	9,953 50	1,755 10	70 75	211 98	3,899 77	20,716 10	2,821 13	7,419 68	30,956 91
Kent	43,743 55	254,458 39	82,305 27	10,433 83	12,659 65	78,791 71	482,392 40	13,910 05	88,849 26	585,151 71
Keweenaw	3,050 00	3,155 00	435 36			1,875 28	8,515 64		9,039 59	17,555 23
Lake	2,722 75	7,495 50	1,301 42	59 57	90 55	2,856 85	14,526 64	735 52	7,044 20	22,306 36
Lapeer	15,324 85	32,273 73	4,912 47	234 01	717 17	14,853 40	68,315 63	4,266 80	18,028 30	90,610 73
Leelanau	4,995 00	10,715 90	5,340 50	59 68	387 44	3,353 85	24,852 37	2,319 83	6,513 05	33,685 25
Lenawee	25,348 85	62,178 10	11,621 06	3,092 37	124 19	18,504 12	120,868 69	2,876 02	29,517 89	153,262 60
Livingston	12,629 60	26,002 94	6,036 27	170 86	52 81	7,772 75	52,665 23	939 41	10,361 66	63,966 30
Luce	1,850 00	6,749 75	398 22	126 25	10 84	3,924 26	13,059 32		11,580 19	24,639 51
Mackinac	4,756 25	11,215 80	3,262 05	26 75	1,081 89	6,227 03	26,569 77	2,484 95	6,728 33	35,783 05
Macomb	19,731 25	32,938 60	8,465 66	1,322 18	533 76	12,947 10	75,938 55	7,573 49	52,644 27	136,156 31
Manistee	12,173 00	43,978 84	5,487 45	1,093 42	1,286 45	19,750 54	83,749 70	4,099 44	16,429 35	104,278 49
Marquette	19,850 00	84,021 75	76,107 85	891 16	4,319 58	90,070 72	275,261 06	11,000 00	58,545 81	344,806 87
Mason	6,337 50	30,090 62	4,507 13	1,035 09	896 56	8,975 33	51,842 23	3,736 72	18,671 40	74,250 35
Mecosta	7,364 48	28,487 10	3,890 92	120 70	260 17	8,104 15	48,227 52	1,245 60	25,836 64	75,309 76
Menominee	11,826 00	46,851 15	7,612 10	393 69	4,384 06	23,340 25	94,407 25	7,727 71	17,334 45	119,469 41
Midland	5,096 15	17,631 09	4,691 21	74 43	277 05	6,932 04	34,701 97	2,318 06	14,567 60	51,587 63
Missaukee	6,146 25	11,247 17	4,869 27	56 28	429 37	4,807 98	27,556 32	2,052 85	9,760 83	39,370 00
Monroe	16,583 15	29,266 68	4,599 25	999 38	553 59	15,032 12	67,034 17	2,128 54	15,325 36	84,488 07
Montcalm	14,688 50	40,284 44	7,416 73	202 79	1,006 92	12,305 11	75,904 49	4,950 57	22,818 05	103,673 11
Montmorency	1,828 50	5,852 50	1,396 95	50 00		2,020 11	11,128 06	595 51	5,598 39	17,321 96
Muskegon	13,966 25	70,204 84	10,484 76	21 52	8,795 19	38,514 71	141,987 27	7,439 06	21,829 21	171,255 54
Newaygo	8,325 55	23,281 86	5,829 22	100 86	301 51	6,741 19	44,580 19	2,291 24	15,013 62	61,885 05
Oakland	22,640 00	60,942 82	6,909 36	700 75	662 44	21,275 71	113,131 08	7,017 61	25,957 72	146,106 41
Oceana	8,151 02	20,032 70	4,731 40	3 50	357 02	5,388 53	38,664 17	2,687 78	12,466 41	53,818 36

Ogemaw	3,699 50	8,373 14	2,231 83	.....	863 10	3,317 76	18,485 53	1,061 25	10,638 22	30,184 80
Ontonagon	4,470 00	15,589 00	25,173 51	111 36	2,076 01	12,811 44	60,231 32	10,118 81	2,514 02	72,864 15
Osceola	8,721 75	26,299 95	3,988 39	177 56	754 85	7,443 69	47,386 19	3,761 47	12,248 53	63,396 19
Oscoda	630 00	1,868 00	125 92	.....	.....	598 65	3,222 57	560 01	1,059 98	4,842 56
Otsego	3,140 85	9,619 75	2,103 11	139 15	496 88	2,883 95	18,383 69	2,151 09	7,274 70	27,809 48
Ottawa	19,883 90	49,587 98	8,719 68	543 52	1,459 29	22,514 68	102,709 05	3,819 11	54,318 31	160,846 47
Presque Isle	3,414 62	6,799 50	7,556 66	147 00	660 53	3,745 42	22,323 73	2,374 44	5,270 73	29,968 90
Roscommon	620 00	1,655 10	109 97	.....	280 50	446 27	3,111 84	255 97	1,099 72	4,467 53
Saginaw	38,825 00	120,429 03	12,102 82	1,486 75	2,420 83	47,613 93	222,878 36	8,825 54	57,187 21	288,891 11
St. Clair	17,776 00	68,340 02	37,399 32	3,370 20	1,922 61	28,988 67	157,796 82	7,111 87	26,822 67	191,731 36
St. Joseph	15,811 13	37,238 62	3,871 18	476 21	221 08	14,122 70	71,740 92	4,196 75	11,037 37	86,975 04
Sanilac	23,506 50	26,613 25	7,167 36	67 74	2,030 22	12,561 18	71,946 25	4,944 58	29,633 86	106,524 69
Schoolcraft	4,550 00	14,798 63	2,301 90	304 00	1,000 82	8,401 72	31,357 07	5,762 70	12,227 97	49,347 74
Shiawassee	19,504 30	43,137 99	73,110 31	1,120 16	1,803 24	24,521 19	163,197 19	7,806 14	17,812 83	188,816 16
Tuscola	14,516 66	36,406 40	6,771 16	461 44	1,141 21	12,232 62	71,529 49	4,919 06	27,345 99	103,794 54
Van Buren	19,194 10	40,230 60	6,348 51	987 68	526 72	14,497 62	81,785 23	7,396 88	18,968 50	108,149 61
Washtenaw	24,114 00	76,152 11	36,508 31	2,516 61	2,343 04	42,087 93	183,722 00	6,791 33	21,058 94	211,572 27
Wayne	106,833 53	651,123 62	469,176 07	50,850 26	10,705 37	216,550 70	1,505,239 55	24,186 24	119,806 11	1,649,231 90
Wexford	6,834 56	31,781 65	12,416 84	81 54	492 75	11,767 95	63,375 29	2,065 34	16,163 33	81,603 96

TABLE VII.

Miscellaneous statistics as reported by school inspectors for the year ending September 2, 1901.

Counties.	Bonded indebtedness of the districts.	Total indebtedness of the districts.	Amount due the districts.	Amount paid and due inspectors and members of school boards for services.	Amount paid and due township chairmen and other officers for services.
Totals	$2,239,441 73	$2,455,821 03	$372,874 15	$15,993 53	$34,678 72
Alcona	$3,100 00	$3,619 18	$1,389 70	$85 25	$20 75
Alger	5,630 00	6,399 20	.....	294 50	630 00
Allegan	25,207 43	26,236 08	3,739 04	178 25	73 81
Alpena	2,000 00	2,828 44	5,976 00	229 75	228 92
Antrim	21,517 00	23,777 79	11,832 94	106 25	6 75
Arenac	16,415 10	17,072 31	1,691 18	101 35	28 35
Baraga	.....	.....	.....	173 40	427 00
Barry	778 34	1,428 72	1,160 15	176 89	116 14
Bay	90,360 00	108,821 95	6,623 04	157 50	633 75
Benzie	19,837 67	20,015 22	6,818 79	69 25	8 25
Berrien	44,408 60	55,185 07	5,690 87	151 75	354 75
Branch	10,763 64	10,793 64	1,113 21	158 50	228 50
Calhoun	29,446 46	29,852 44	1,900 75	120 00	344 75
Cass	2,280 00	7,445 28	2,842 77	178 50	85 25
Charlevoix	32,363 00	33,171 70	2,347 74	164 25	35 00
Cheboygan	47,204 40	49,643 53	4,785 96	249 75	149 00
Chippewa	99,725 00	102,808 98	9,936 05	240 00	575 50
Clare	12,050 00	13,146 52	1,683 42	122 75	90 25
Clinton	1,000 00	1,401 56	2,220 26	113 80	18 75
Crawford	222 00	273 00	1,316 42	78 30	3 00
Delta	53,769 89	71,008 29	5,580 25	294 18	573 00
Dickinson	67,091 00	78,196 00	78 00	434 50	1,170 84
Eaton	2,900 00	5,143 99	2,671 11	119 87	347 00
Emmet	19,539 00	20,251 05	7,235 64	133 55	51 75
Genesee	15,326 82	15,793 40	4,725 31	214 75	419 50
Gladwin	3,267 00	4,541 67	2,183 77	114 40	58 60
Gogebic	61,000 00	61,000 00	500 00	376 50	1,028 00
Grand Traverse	27,550 00	27,950 48	4,232 10	132 90	53 90
Gratiot	31,564 00	32,128 12	2,622 26	149 50	162 00
Hillsdale	11,780 24	18,435 23	1,753 37	101 50	146 00
Houghton	101,200 00	102,844 86	7,691 87	294 50	263 50
Huron	40,684 00	40,954 54	4,728 93	310 25	139 50
Ingham	21,985 00	23,355 15	1,840 50	102 50	806 00
Ionia	6,000 00	6,332 26	764 51	91 25	35 75
Iosco	950 00	1,567 09	539 31	132 00	211 00
Iron	16,067 50	18,254 35	1,673 03	599 00	735 00
Isabella	19,195 00	20,136 61	4,589 60	161 25	122 50
Jackson	32,210 00	33,346 31	1,538 09	121 75	910 50
Kalamazoo	1,655 20	2,411 45	1,532 88	134 75	417 00
Kalkaska	767 00	1,997 43	1,724 82	94 25	19 50
Kent	271,190 46	271,458 95	20,406 96	183 55	1,244 85
Keweenaw	.....	.....	70 80	103 50	171 00
Lake	305 00	2,155 80	4,043 13	89 00	20 75
Lapeer	3,825 00	7,282 45	1,115 51	108 75	69 50
Leelanau	6,652 00	6,695 17	1,308 53	77 00	3 00
Lenawee	2,722 37	3,777 95	3,197 49	176 60	196 00
Livingston	1,342 99	2,668 81	1,366 34	125 50	24 75
Luce	.....	271 00	236 70	227 50	330 00
Mackinac	14,525 00	16,503 60	4,612 04	235 00	559 75
Macomb	32,999 00	33,331 00	1,612 80	305 73	24 75

TABLE VII.—Concluded.

Counties.	Bonded indebtedness of the districts.	Total indebtedness of the districts.	Amount due the districts.	Amount paid and due inspectors and members of school boards for services.	Amount paid and due township chairmen and other officers for services.
Manistee	$29,250 00	$30,080 76	$13,312 94	$107 75	$38 75
Marquette	86,500 00	103,577 43	24,360 26	984 01	2,569 77
Mason	15,848 00	16,106 00	5,401 25	112 60	164 95
Mecosta	3,570 00	4,176 50	3,691 21	150 21	214 96
Menominee	61,454 14	75,595 78	2,436 68	305 30	924 70
Midland	4,494 50	5,073 77	10,621 98	99 25	101 25
Missaukee	3,575 00	4,445 46	4,114 43	140 25	29 00
Monroe	12,240 00	12,534 04	219 63	157 50	62 75
Montcalm	18,955 00	23,016 26	7,069 31	213 45	149 25
Montmorency	.....	.....	150 00	259 75	270 97
Muskegon	37,240 00	54,485 76	41,675 57	184 00	55 75
Newaygo	5,700 13	6,304 98	8,156 06	280 00	67 00
Oakland	56,650 00	57,385 58	939 97	201 00	145 25
Oceana	2,250 00	2,712 92	2,884 82	180 75	60 60
Ogemaw	14,700 00	18,560 60	2,544 33	186 12	13 67
Ontonagon	18,166 66	26,031 84	1,238 80	601 50	875 00
Osceola	10,850 00	11,135 78	7,507 55	148 75	48 00
Oscoda	.....	142 39	722 81	56 25	68 25
Otsego	5,787 60	6,224 85	3,438 94	81 75	18 00
Ottawa	52,100 00	53,259 67	2,114 31	186 50	233 75
Presque Isle	12,300 00	14,940 71	1,362 20	79 75	46 00
Roscommon	3,000 00	3,414 15	1,319 44	38 25	7 25
Saginaw	27,915 00	28,220 70	5,613 02	309 25	3,452 71
St. Clair	36,605 60	39,158 67	953 60	233 75	104 75
St. Joseph	500 00	1,286 93	498 81	148 25	142 50
Sanilac	39,468 28	40,385 09	1,990 21	200 00	52 25
Schoolcraft	12,110 00	12,436 33	169 31	396 00	458 50
Shiawassee	46,467 00	49,507 45	3,602 58	151 75	283 00
Tuscola	16,600 00	16,756 00	2,949 89	178 05	17 87
Van Buren	3,826 00	7,930 32	4,619 83	175 52	38 52
Washtenaw	65,750 50	70,991 80	726 07	158 25	908 59
Wayne	192,126 21	202,863 33	34,604 50	206 75	8,650 50
Wexford	11,050 00	13,332 97	2,419 90	186 60	31 00

TABLE VIII.

Cost per capita of public schools of the State for the school year ending September 2, 1901.

Counties.	Number of pupils included in school census in—		Number of pupils enrolled in—		Cost per capita for instruction based on school census in—			Cost per capita for instruction based on enrollment in—			Total expenses per capita during year based on enrollment in—		
	Graded school districts.	Ungraded school districts.	Graded school districts.	Ungraded school districts.	Graded school districts.	Ungraded school districts.	All school districts.	Graded school districts.	Ungraded school districts.	All school districts.	Graded school districts.	Ungraded school districts.	All school districts.
Totals.....	421,459	308,642	296,052	213,979	$7 58	$4 98	$6 48	$10 79	$7 18	$9 28	$19 59	$10 11	$15 61
Alcona.....	215	1,767	172	1,289	$5 98	$4 16	$4 86	$7 48	$6 47	$6 59	$9 36	$10 58	$10 44
Alger.....	1,252	228	1,056	230	9 44	17 15	10 63	11 19	17 00	12 23	16 64	24 77	18 10
Allegan.....	3,902	7,952	3,221	5,761	7 63	4 44	5 49	9 25	6 13	7 25	13 95	9 03	10 79
Alpena.....	4,325	2,624	2,036	1,603	4 28	3 92	4 14	9 09	6 42	7 91	12 49	9 70	11 26
Antrim.....	2,396	2,556	2,018	1,898	6 35	6 41	6 38	7 54	8 63	8 07	12 81	12 45	12 64
Arenac.....	1,792	1,845	1,371	1,337	4 13	3 80	3 96	5 40	5 24	5 32	11 01	7 79	9 43
Baraga.....	1,336	256	891	146	7 16	13 20	8 13	10 74	23 15	12 48	16 27	43 87	20 15
Barry.....	1,617	4,477	1,457	3,383	10 17	6 35	7 37	11 29	8 41	9 28	15 40	10 53	11 99
Bay.....	14,504	7,013	8,532	3,811	5 88	2 72	4 85	10 00	5 02	8 46	16 50	8 71	14 11
Benzie.....	1,673	1,375	1,354	1,019	6 82	6 32	6 59	8 42	8 53	8 47	11 55	11 84	11 67
Berrien.....	7,928	6,327	6,477	4,341	7 69	4 75	6 38	9 40	6 92	8 40	16 77	9 62	13 90
Branch.....	2,812	4,104	1,995	3,101	8 70	5 98	7 09	12 27	7 92	9 62	19 52	10 05	13 76
Calhoun.....	7,661	4,774	5,854	3,428	8 63	6 58	7 84	11 29	9 17	10 51	24 01	11 29	19 42
Cass.....	2,136	3,473	1,813	2,595	9 69	7 16	8 13	11 42	9 59	10 12	16 03	11 85	13 57
Charlevoix.....	2,067	2,645	1,649	1,853	6 10	4 94	5 47	7 71	7 05	7 36	13 02	10 94	11 92
Cheboygan.....	2,801	2,732	2,233	1,777	5 01	5 74	5 37	6 29	8 82	7 41	14 14	14 21	13 92
Chippewa.....	3,527	2,839	2,441	2,034	7 12	5 93	6 59	10 29	8 10	9 37	31 60	11 74	22 54
Clare.....	999	1,783	846	1,291	5 95	5 19	5 46	7 03	7 17	7 11	32 95	10 86	19 60
Clinton.....	1,884	5,221	1,733	3,233	9 49	5 13	6 28	10 30	8 28	8 99	14 78	10 63	12 08
Crawford.....	425	379	373	232	7 88	5 47	6 74	8 97	8 94	8 96	13 75	11 58	12 92
Delta.....	4,502	2,966	3,019	1,993	5 93	5 16	5 62	8 84	7 68	8 38	20 42	11 27	16 78
Dickinson.....	4,627	1,422	3,388	943	7 22	7 92	7 38	9 86	11 95	10 31	26 87	29 02	27 33
Eaton.....	3,132	4,689	2,956	3,354	10 90	6 19	8 07	11 55	8 65	10 01	17 13	11 35	14 05
Emmet.....	2,141	2,329	1,531	1,560	6 86	5 39	6 09	9 60	8 04	8 82	15 43	12 42	13 91
Genesee.....	5,344	5,780	4,359	4,203	9 25	5 35	7 21	11 32	7 36	9 37	18 15	10 37	14 56
Gladwin.....	712	1,774	660	1,094	4 93	4 50	4 63	5 32	7 31	6 56	8 21	10 47	10 19
Gogebic.....	4,054	924	3,226	648	9 47	9 04	9 39	11 90	12 90	12 07	21 59	37 69	24 29
Gd. Traverse...	3,426	2,669	2,703	1,929	7 73	5 38	6 70	9 80	7 44	8 82	18 17	10 04	14 78
Gratiot.....	2,846	6,223	2,536	4,646	7 18	4 30	5 21	8 05	5 76	6 57	11 73	7 81	9 19
Hillsdale.....	2,735	4,606	2,326	3,380	9 19	6 16	7 29	10 81	8 40	9 38	18 95	10 69	14 06
Houghton.....	21,051	775	13,927	557	7 81	9 78	7 88	11 80	13 60	11 87	20 54	22 86	20 63
Huron.....	3,972	8,901	2,805	5,688	5 11	3 04	3 68	7 24	4 75	5 58	10 40	6 96	7 98
Ingham.....	6,268	4,146	4,611	3,069	8 70	6 45	7 81	11 83	8 72	10 59	18 18	11 14	15 37
Ionia.....	4,217	4,943	3,752	3,362	8 39	5 26	6 69	9 43	7 72	8 62	14 26	10 15	12 31
Iosco.....	2,528	1,109	1,808	677	4 94	3 98	4 65	6 91	6 52	6 81	8 64	11 85	9 52
Iron.....	2,022	468	1,749	374	8 84	10 31	9 12	10 22	12 91	10 70	19 93	25 95	20 99
Isabella.....	1,407	5,924	1,177	4,098	7 76	3 78	4 55	9 28	5 47	6 32	15 57	7 77	9 51
Jackson.....	7,154	4,736	5,048	3,345	8 74	6 32	7 78	12 39	8 94	11 02	17 31	11 31	14 92
Kalamazoo.....	7,547	3,587	5,672	2,587	8 67	7 04	8 15	11 54	9 77	10 97	20 87	12 07	18 12
Kalkaska.....	502	1,418	464	1,120	7 74	7 73	7 77	8 38	9 80	9 38	12 65	13 25	13 07
Kent.....	30,344	8,947	18,784	6,076	12 58	4 70	7 58	13 63	6 92	11 99	22 79	8 91	19 40
Keweenaw.....	38	803	35	589	17 50	6 89	7 37	19 00	9 40	9 94	23 75	13 04	13 64
Lake.....	588	925	468	722	5 91	7 28	6 75	7 43	9 33	8 58	10 00	13 63	12 20
Lapeer.....	2,572	5,715	2,201	4,118	8 80	4 39	5 74	10 22	6 09	7 53	16 00	8 03	10 81
Leelanau.....	821	2,937	460	1,885	4 76	4 01	4 18	8 51	6 25	6 69	17 52	8 90	10 59
Lenawee.....	5,786	6,887	4,439	5,001	8 09	5 91	6 90	10 54	8 14	9 27	14 87	10 60	12 80
Livingston.....	1,298	3,858	1,088	2,977	10 61	6 44	7 49	12 66	8 35	9 50	17 76	11 19	12 95
Luce.....	534	190	484	157	11 32	12 89	11 87	12 52	16 24	13 41	16 83	31 29	20 37

TABLE VIII.—CONCLUDED.

Counties.	Number of pupils included in school census in—		Number of pupils enrolled in—		Cost per capita for instruction based on school census in—			Cost per capita for instruction based on enrollment in—			Total expenses per capita during year based on enrollment in—		
	Graded school districts.	Ungraded school districts.	Graded school districts.	Ungraded school districts.	Graded school districts.	Ungraded school districts.	All school districts.	Graded school districts.	Ungraded school districts.	All school districts.	Graded school districts.	Ungraded school districts.	All school districts.
Mackinac	1,115	1,486	743	1,054	$5 11	$6 90	$6 14	$7 67	$9 74	$8 88	$14 35	$15 08	$14 78
Macomb	4,774	5,868	2,903	3,442	6 32	3 83	4 94	10 39	6 53	8 30	16 18	8 41	11 96
Manistee	6,998	2,540	4,368	1,747	6 35	4 61	5 88	10 17	6 70	9 18	15 24	9 83	13 69
Marquette	11,137	2,544	7,437	1,646	7 48	8 04	7 59	11 21	12 43	11 43	32 51	20 31	30 30
Mason	3,146	3,393	2,286	2,464	6 77	4 45	5 57	9 32	6 13	7 66	13 05	8 92	10 91
Mecosta	2,231	4,727	1,729	3,559	7 01	4 27	5 15	9 04	5 67	6 77	11 78	7 82	9 12
Menominee	5,745	3,635	4,290	2,405	6 64	5 63	6 26	8 90	8 51	8 76	13 81	14 64	14 10
Midland	1,558	3,517	1,286	2,275	6 10	3 75	4 47	7 39	5 85	6 38	10 50	9 31	9 74
Missaukee	1,016	2,094	870	1,644	5 30	5 73	5 59	6 19	7 29	6 91	11 31	10 77	10 96
Monroe	2,910	7,350	1,903	4,986	5 85	3 90	4 46	8 95	5 78	6 66	15 68	7 46	9 73
Montcalm	3,626	6,681	3,155	4,712	7 70	4 04	5 33	8 85	5 73	6 97	12 53	7 71	9 64
Montmorency	280	692	214	457	4 85	9 10	7 88	6 35	13 78	11 41	11 94	18 75	16 58
Muskegon	9,156	3,882	6,062	2,762	7 50	3 98	6 45	11 33	5 60	9 53	19 71	8 12	16 09
Newaygo	1,319	4,622	1,216	3,468	6 97	4 84	5 32	7 56	6 46	6 74	10 28	9 24	9 51
Oakland	5,465	5,668	4,192	4,002	8 62	6 42	7 50	11 24	9 10	10 20	16 21	11 28	13 80
Oceana	1,077	4,117	997	3,011	8 17	4 70	5 42	8 82	6 43	7 03	12 71	8 64	9 64
Ogemaw	865	1,793	696	1,208	4 74	4 44	4 54	5 90	4 11	6 34	8 77	10 24	9 70
Ontonagon	999	645	886	540	12 32	12 01	12 20	13 89	14 35	15 06	49 11	30 96	42 23
Osceola	1,902	4,184	1,732	2,954	8 13	4 67	5 75	8 93	6 61	7 47	11 91	9 05	10 11
Oscoda	....	383	.....	301	.....	6 52	6 52	.....	8 30	8 30	.....	10 70	10 70
Otsego	780	1,072	574	686	6 39	7 25	6 89	8 69	11 32	10 12	12 85	16 03	14 59
Ottawa	8,027	5,630	6,044	3,801	5 85	3 88	5 08	7 77	5 90	7 05	12 14	7 70	10 43
Presque Isle	1,012	2,066	810	841	4 76	2 60	3 31	5 95	6 41	6 18	17 34	9 83	13 52
Roscommon	256	242	143	150	4 06	5 10	4 56	7 27	8 23	7 76	11 06	10 19	10 62
Saginaw	16,755	10,242	10,503	6,706	7 42	3 40	5 90	11 83	5 20	9 25	16 60	7 22	12 95
St. Clair	9,384	7,991	6,169	5,561	5 54	4 26	4 95	8 43	6 12	7 34	18 28	8 08	13 45
St. Joseph	2,893	3,227	2,274	2,381	10 58	6 94	8 66	13 46	9 41	11 38	19 01	11 96	15 41
Sanilac	3,414	8,679	2,691	6,525	5 37	3 65	4 14	6 08	4 86	5 43	10 37	6 74	7 80
Schoolcraft	1,463	694	1,240	543	9 01	8 89	8 97	10 60	11 36	10 85	17 51	17 75	17 58
Shiawassee	4,066	4,521	3,521	3,192	9 40	5 35	7 27	10 90	7 67	9 33	36 99	10 31	24 31
Tuscola	3,271	8,159	2,665	5,676	6 57	3 60	4 46	8 07	5 17	6 10	11 48	7 21	8 57
Van Buren	4,075	5,570	3,374	4,109	7 44	5 22	6 16	8 98	7 08	7 94	12 66	9 50	10 92
Washtenaw	6,706	5,553	4,617	3,715	10 27	5 64	8 17	14 92	8 44	12 03	31 08	10 81	22 05
Wayne	93,864	8,695	58,866	5,107	7 68	4 25	7 39	12 24	7 23	11 84	24 53	11 90	23 52
Wexford	2,734	2,459	2,398	1,841	8 26	6 51	7 43	9 42	8 69	9 10	15 81	13 82	14 95

TABLE IX.

Statistics of township and district libraries as reported by school inspectors for the year ending September 2, 1901

Counties.	Number of townships using library money for general school purposes.	Number of townships forfeiting library money.	Number of townships maintaining libraries.	Number of volumes added to township libraries during the year.	Whole number of volumes in township libraries.	Amount of taxes voted for township libraries.	Amount of fines, etc., received from county treasurer for township libraries.	Amount paid for books and care of township libraries.	Amount of township library money on hand Sept. 2, 1901.	Number of districts maintaining libraries.	Number of volumes added to district libraries during the year.	Whole number of volumes in district libraries.	Amount paid for the support of district libraries.	Amount of fines, etc., received from county treasurer for district libraries.
Totals	297	517	411	9,515	169,110	$2,600 28	$8,016 76	$11,261 46	$14,280 44	3,846	60,534	850,448	$107,504 23	$120,871 61
Alcona	1	7	3	.....	880	.....	$5 81	$49 50	$46 15	7	.....	391	.....	$6 70
Alger	4	3	.....	.....	.....	.....	133 28	.....	133 28	1	28	75	$18 88	10 37
Allegan	9	8	7	313	3,183	.....	421 34	231 85	515 89	144	1,345	9,890	1,752 34	2,654 43
Alpena	3	1	3	13	507	.....	.....	10 00	8 30	4	155	4,044	646 44	190 58
Antrim	1	1	13	325	3,565	$5 00	45 69	477 34	352 13	16	126	1,725	65 74	431 60
Arenac	4	6	1	.....	92	.....	19 88	10 75	.....	11	56	954	107 75	89 74
Baraga	.....	5	.....	.....	.....	.....	.....	.....	.....	4	60	1,360	152 89	124 00
Barry	7	6	3	50	1,019	.....	120 20	79 68	51 27	88	753	6,641	717 75	1,410 31
Bay	3	5	8	519	3,362	.....	256 55	492 41	323 58	29	1,908	53,451	294 95	284 72
Benzie	1	2	9	51	2,189	10 00	137 06	113 83	227 52	24	214	2,724	121 20	90 67
Berrien	4	10	6	213	5,247	200 00	101 29	315 58	300 73	139	1,774	21,728	1,734 84	1,684 28
Branch	8	4	4	319	3,844	465 00	164 50	404 16	340 06	53	339	5,276	195 01	1,668 71
Calhoun	11	7	2	104	1,332	.....	96 57	143 87	73 95	94	1,361	25,766	1,627 55	1,437 87
Cass	6	4	5	130	1,917	.....	64 10	138 36	108 13	63	402	5,769	272 08	506 50
Charlevoix	6	3	6	165	2,278	300 00	82 74	270 89	319 34	18	332	1,576	25 55	114 86
Cheboygan	4	7	4	60	589	.....	74 75	58 74	134 03	21	390	5,531	210 43	205 55
Chippewa	2	8	3	.....	393	.....	1 82	.....	70 87	9	168	2,378	123 83	54 45
Clare	1	8	5	24	902	25 00	.....	30 25	101 03	11	246	781	33 37	32 32
Clinton	5	4	7	407	1,957	90 00	120 07	146 97	122 38	82	764	5,288	314 22	1,034 33
Crawford	.....	1	4	.....	1,749	.....	76 55	93 75	110 35	8	117	604	112 34	13 65
Delta	4	6	2	11	725	.....	30 45	44 75	95 94	9	119	2,833	202 78	384 90
Dickinson	1	5	.....	.....	.....	.....	.....	.....	10 66	7	314	6,723	698 38	503 10
Eaton	4	5	7	210	5,549	.....	573 34	418 34	624 98	93	646	8,428	432 95	2,192 62
Emmet	.....	2	13	377	2,416	25 00	43 11	203 55	192 24	30	152	2,681	282 38	67 06
Genesee	6	11	1	50	528	.....	40 79	60 76	03	110	1,658	9,355	1,171 48	2,308 68
Gladwin	1	10	1	102	157	.....	.....	61 35	32 60	12	31	792	26 40	12 24
Gogebic	1	3	1	.....	.....	.....	.....	.....	.....	4	440	3,980	982 61	83 50
Grand Traverse	.....	2	11	126	4,659	.....	123 72	245 25	194 75	37	214	3,419	126 83	274 19
Gratiot	3	14	.....	.....	.....	.....	15 00	.....	.....	120	704	11,738	543 26	668 77

Hillsdale	9	8	1	7	500	.....	.....	34 00	.....	127	759	7,304	497 71	1,202 01
Houghton	1	9	3	19	15,597	.....	360 94	152 50	536 78	17	1,912	13,463	2,447 79	2,405 40
Huron	7	11	8	145	2,719	100 00	99 35	156 40	410 98	77	824	5,372	217 10	154 94
Ingham	9	7	.....	.....	.....	.....	53 72	.....	.....	82	899	14,559	1,303 56	3,155 08
Ionia	11	5	1	325	800	100 00	12 54	127 00	.....	74	453	6,443	344 79	1,341 57
Iosco	1	2	6	.....	706	.....	.....	26 00	8 84	14	57	2,615	16 27	9 00
Iron	4	4	.....	.....	.....	.....	.....	.....	.....	4	550	2,563	484 87	610 69
Isabella	3	7	6	24	1,137	.....	5 32	29 51	96 53	28	233	1,760	74 97	473 96
Jackson	4	15	.....	.....	.....	.....	77 61	.....	.....	124	954	9,185	688 05	1,807 07
Kalamazoo	7	7	2	50	1,245	150 00	15 79	10 00	25 17	91	280	36,908	4,253 89	1,383 88
Kalkaska	2	6	3	43	344	.....	46 68	33 79	50 96	12	.....	821	70 75	166 11
Kent	4	13	7	251	4,308	25 00	80 21	256 27	89 54	134	2,992	74,153	10,433 83	2,760 55
Keweenaw	1	4	1	.....	250	.....	.....	.....	80 87	4	.....	1,430	.....	70 11
Lake	1	1	10	199	2,127	.....	124 93	239 13	342 46	9	296	1,480	59 57	49 96
Lapeer	4	11	3	74	1,371	.....	16 26	65 46	8 05	90	800	7,898	234 01	496 80
Leelanau	.....	1	10	.....	2,725	.....	.....	133 50	215 46	19	113	692	59 68	635 71
Lenawee	4	14	4	40	1,864	.....	11 28	68 84	18 27	122	2,080	29,714	3,092 37	1,560 10
Livingston	9	5	3	.....	1,357	.....	25 49	31 00	170 42	26	124	2,695	170 86	793 82
Luce	2	2	.....	.....	.....	.....	.....	.....	.....	2	29	1,180	126 25	12 92
Mackinac	1	10	.....	.....	.....	.....	.....	.....	.....	10	50	2,361	26 75	367 70
Macomb	3	6	6	271	1,200	250 00	50 82	208 00	352 78	52	546	12,028	1,322 18	1,140 89
Manistee	2	3	7	118	2,082	25 00	82 43	135 67	83 51	32	1,666	7,106	1,093 42	503 53
Marquette	5	10	1	.....	256	.....	2 75	.....	2 75	14	526	9,109	891 16	1,399 63
Mason	1	3	9	927	4,367	.....	666 62	987 53	288 47	19	602	5,171	1,035 09	1,868 30
Mecosta	3	9	4	139	1,434	.....	119 60	146 90	159 42	57	474	3,725	120 70	537 76
Menominee	4	4	1	.....	540	100 00	4 73	50 00	63 74	17	307	3,573	393 69	263 42
Midland	4	9	5	.....	255	.....	11 60	21 75	12 24	27	171	2,314	74 43	362 61
Missaukee	1	3	10	223	1,975	.....	164 49	221 02	95 98	18	81	1,231	56 28	241 83
Monroe	2	4	10	26	2,343	.....	25 47	96 40	85 83	96	777	9,860	999 38	1,592 09
Montcalm	8	4	8	320	2,693	.....	51 33	187 81	83 50	51	790	6,218	202 79	494 17
Montmorency	.....	5	1	131	191	.....	.....	25 97	.....	2	40	295	50 00	94 32
Muskegon	.....	4	13	187	5,508	70 00	163 18	346 35	365 40	23	2,569	35,833	21 52	202 12
Newaygo	6	4	13	171	3,140	.....	75 01	208 65	250 28	67	1,321	4,652	100 86	35 49
Oakland	10	12	3	327	2,041	.....	356 22	232 03	92 08	84	1,231	10,140	700 75	2,493 22
Oceana	.....	.....	16	140	7,999	165 00	87 79	402 01	266 03	39	171	2,590	3 50	381 27
Ogemaw	1	7	4	267	2,067	100 00	136 21	155 00	90 60	3	.....	318	.....	212 67
Ontonagon	1	8	.....	.....	.....	.....	.....	.....	.....	2	200	872	111 36	186 73
Osceola	3	4	9	206	4,442	.....	108 90	311 40	342 39	28	553	2,631	177 56	516 96
Oscoda	1	1	1	35	475	.....	.....	31 45	42 13	2	97	247	.....	33 64
Otsego	2	2	7	185	2,679	50 00	664 17	320 27	823 28	14	209	751	139 15	404 27
Ottawa	2	2	11	215	5,627	.....	318 64	293 37	502 89	58	413	6,412	543 52	1,213 55
Presque Isle	3	8	1	.....	19	.....	.....	.....	.....	12	189	650	147 00	31 44
Roscommon	1	2	4	.....	837	50 00	.....	35 00	25 00	.....	.....	1	.....	.....
Saginaw	4	11	12	88	5,486	25 00	183 52	227 00	441 15	61	965	25,306	1,486 75	1,501 41
St. Clair	8	16	6	29	2,656	.....	92 48	68 08	216 51	118	2,402	17,912	3,370 20	1,427 21
St. Joseph	7	6	3	.....	841	130 28	20	86 00	130 70	103	427	7,921	476 21	1,028 54

TABLE IX.—CONCLUDED.

Counties.	Number of townships using library money for general school purposes.	Number of townships forfeiting library money.	Number of townships maintaining libraries.	Number of volumes added to township libraries during the year.	Whole number of volumes in township libraries.	Amount of taxes voted for township libraries.	Amount of fines, etc., received from county treasurer for township libraries.	Amount paid for books and care of township libraries.	Amount of township library money on hand Sept. 2, 1901.	Number of districts maintaining libraries.	Number of volumes added to district libraries during the year.	Whole number of volumes in district libraries.	Amount paid for the support of district libraries.	Amount of fines, etc., received from county treasurer for district libraries.
Sanilac	10	7	10	60	2,683		$110 89	$71 52	$112 69	41	404	2,516	$67 74	$522 05
Schoolcraft	2	5	2		470			5 00	1,178 55	5	24	1,805	304 00	
Shiawassee	2	13	1		540	$15 00	26 88	15 00	88 69	75	1,717	6,394	1,120 16	646 67
Tuscola	6	7	10	104	3,396		149 16	132 84	312 16	60	665	6,016	461 44	746 83
Van Buren	2	10	7	358	6,009		457 51	412 08	733 55	117	908	9,215	987 68	2,067 59
Washtenaw	8	8	4	39	2,390		36 11	75 86	45 77	87	2,013	19,410	2,516 61	896 90
Wayne	1	16	3	1	2,026		61 08	44 00	254 79	125	9,760	197,460	50,850 26	59,650 78
Wexford		4	12	202	4,354	125 00	129 66	241 57	193 16	251	95	2,180	81 54	183 64

TABLE X.

Branches of instruction as reported by school inspectors for the year ending Sept. 2, 1901.

Counties.	Number of districts in which instruction is given in—													
	Algebra.	Arithmetic.	Botany.	Civil Government.	General History.	Geography.	Geometry.	Grammar.	Orthography.	Penmanship.	Physics.	Physiology.	Reading.	U. S. History.
Totals	2,098	6,797	1,097	5,495	1,930	6,823	983	6,753	4,218	5,285	1,005	6,495	6,701	6,473
Alcona	10	32	3	18	7	27	1	26	16	16	3	23	27	25
Alger	5	10	4	8	4	7	3	8	7	8	3	8	8	9
Allegan	41	172	10	162	26	163	7	173	112	152	12	159	171	167
Alpena	13	17	10	14	12	16	10	17	17	16	11	18	17	18
Antrim	26	66	20	47	28	69	14	65	44	46	15	63	66	63
Arenac	9	44	7	34	16	39	7	42	30	38	8	39	40	39
Baraga	3	5	2	4	3	5	4	4	5	4	3	5	5	4
Barry	54	141	33	128	50	143	28	144	83	102	17	142	142	142
Bay	12	67	7	61	21	65	12	64	39	58	9	60	65	62
Benzie	9	49	7	36	12	42	4	51	29	31	8	45	49	45
Berrien	50	140	25	133	23	139	24	148	132	119	20	146	145	142
Branch	32	128	10	93	13	102	7	128	58	76	8	121	121	123
Calhoun	52	164	15	126	49	160	21	157	87	126	15	156	131	153
Cass	30	108	6	86	17	108	4	108	63	83	21	108	108	94
Charlevoix	6	18	9	13	11	14	5	14	12	13	5	14	14	14
Cheboygan	16	54	9	40	12	53	8	52	44	46	9	50	53	53
Chippewa	4	48	3	37	6	47	1	43	19	34	4	43	48	42
Clare	14	53	10	41	23	52	12	51	36	46	8	52	52	48
Clinton	17	130	8	70	24	129	7	126	55	115	7	119	55	69
Crawford	7	15	4	11	5	12	6	11	9	12	.....	13	13	11
Delta	8	26	3	16	7	27	3	27	23	26	4	26	27	23
Dickinson	6	9	2	7	6	6	4	8	5	8	2	8	8	8
Eaton	35	141	23	109	35	126	14	131	61	99	15	134	134	134
Emmet	13	67	6	49	14	68	5	67	37	62	4	64	69	63
Genesee	74	155	53	131	61	153	44	149	97	129	44	144	153	146
Gladwin	10	35	2	25	12	34	4	29	20	32	2	33	35	30
Gogebic	5	7	1	6	6	7	2	7	2	5	2	6	7	6
Grand Traverse	11	68	8	50	8	66	3	67	48	58	3	64	65	60
Gratiot	40	124	25	109	27	128	17	122	83	123	22	123	122	127
Hillsdale	48	180	19	105	26	160	9	150	56	113	11	142	162	133
Houghton	24	33	16	25	19	29	13	31	27	32	15	31	33	33
Huron	36	110	44	101	40	112	15	123	81	79	23	59	122	104
Ingham	54	137	34	126	48	136	23	138	105	95	29	131	135	129
Ionia	30	139	23	119	30	137	20	131	73	83	29	122	137	128
Iosco	11	27	10	21	16	27	14	25	18	26	14	26	27	20
Iron	4	8	2	6	4	8	3	7	7	6	5	7	7	8
Isabella	13	101	5	84	25	98	2	99	58	76	4	92	99	94
Jackson	50	150	18	124	37	147	19	147	99	127	18	139	147	135
Kalamazoo	37	133	21	93	33	122	12	127	68	97	17	117	129	122
Kalkaska	13	46	16	37	20	45	15	48	40	36	10	48	48	48
Kent	64	200	25	80	42	97	16	200	135	139	26	200	200	200
Keweenaw	4	5	.....	5	3	5	2	5	5	5	2	5	5	5
Lake	9	38	9	30	12	38	7	38	28	30	8	38	40	39
Lapeer	43	127	18	120	32	128	14	128	74	96	17	122	128	128
Leelanau	11	57	6	42	15	57	2	56	41	45	9	55	55	54
Lenawee	76	176	23	155	55	175	18	176	116	116	33	182	176	176
Livingston	63	133	9	110	130	128	4	128	63	81	9	110	126	121
Luce	1	4	1	4	1	4	1	4	4	4	1	4	4	4

TABLE X.—CONCLUDED.

Counties.	Number of districts in which instruction is given in—													
	Algebra.	Arithmetic.	Botany.	Civil Government.	General History.	Geography.	Geometry.	Grammar.	Orthography.	Penmanship.	Physics.	Physiology.	Reading.	U. S. History.
Mackinac	5	13	4	10	8	13	3	13	9	12	5	13	13	13
Macomb	26	114	14	85	24	110	12	111	60	90	16	106	111	104
Manistee	14	56	6	46	15	56	5	55	37	44	6	51	56	50
Marquette	11	19	10	18	11	17	8	19	15	18	8	19	18	18
Mason	18	63	7	56	16	60	8	62	37	50	9	61	62	57
Mecosta	20	102	11	83	29	100	12	101	69	74	9	100	102	98
Menominee	7	35	8	21	12	35	7	33	22	25	8	33	36	31
Midland	22	68	9	60	22	71	9	67	44	63	7	69	73	72
Missaukee	15	50	9	40	13	50	7	44	32	34	9	48	47	47
Monroe	40	141	23	97	40	133	40	131	86	97	27	115	122	122
Montcalm	42	133	14	111	28	128	12	133	55	87	12	127	135	132
Montmorency	3	7	1	7	3	7	2	6	5	6	1	7	7	7
Muskegon	24	90	19	68	24	88	14	88	60	74	11	82	73	80
Newaygo	22	108	14	77	27	108	18	107	55	77	14	108	108	104
Oakland	68	192	30	143	38	195	22	185	87	160	24	167	192	181
Oceana	23	88	10	70	23	86	5	84	46	61	5	84	83	80
Ogemaw	13	35	4	20	7	38	4	38	22	32	3	37	38	37
Ontonagon	7	9	6	8	7	9	4	8	8	7	4	9	9	9
Osceola	17	91	15	66	24	83	19	89	67	65	18	90	91	87
Oscoda	6	11	1	7	2	11	1	11	9	10	.....	11	11	9
Otsego	12	40	9	29	11	39	9	37	24	32	10	39	40	36
Ottawa	43	113	23	103	39	113	30	116	89	86	24	120	121	121
Presque Isle	11	27	8	19	17	29	9	29	22	28	3	31	33	30
Roscommon	4	13	1	7	2	13	.....	11	9	13	.....	11	12	13
Saginaw	43	157	17	139	47	150	19	156	106	132	18	152	156	153
St. Clair	36	152	20	128	34	151	18	152	87	121	27	145	149	141
St. Joseph	32	121	11	101	23	120	12	123	60	99	13	114	125	117
Sanilac	71	147	32	143	40	152	31	144	122	112	36	142	142	152
Schoolcraft	4	9	2	8	3	9	3	9	7	9	2	9	9	9
Shiawassee	31	123	22	102	34	121	23	117	65	95	24	117	118	116
Tuscola	34	150	24	126	48	146	32	149	85	95	26	148	143	130
Van Buren	37	42	19	124	40	139	28	142	106	117	19	142	142	141
Washtenaw	64	162	43	140	49	157	50	159	95	114	24	155	159	155
Wayne	47	151	21	125	33	151	13	150	84	121	14	142	151	146
Wexford	11	80	6	57	11	75	6	74	61	56	5	75	74	74

TABLE XI.

Private, select or parochial schools for the year ending September 2, 1901.

Counties.	No. of schools.	No. of teachers.		Estimated number of pupils.
		Men.	Women.	
Totals	411	436	900	53,046
Alcona	1	.....	1	23
Alger	.....	.....	.....	.....
Allegan	4	2	3	170
Alpena	.....	.....	.....	.....
Antrim	.....	.....	.....	.....
Arenac	.....	.....	.....	.....
Baraga	.....	.....	.....	.....
Barry	1	.....	1	6
Bay	22	16	50	3,749
Benzie	2	3	6	190
Berrien	7	10	12	672
Branch	2	1	4	190
Calhoun	4	1	15	530
Cass	1	1	.....	20
Charlevoix	2	.....	2	78
Cheboygan	2	.....	6	328
Chippewa	2	.....	13	435
Clare	1	.....	2	17
Clinton	4	1	9	496
Crawford	.....	.....	.....	.....
Delta	3	1	16	820
Dickinson	1	.....	4	210
Eaton	.....	.....	.....	.....
Emmet	3	2	6	180
Genesee	5	4	14	350
Gladwin	.....	.....	.....	.....
Gogebic	1	.....	12	500
Grand Traverse	1	1	5	200
Gratiot	2	2	3	116
Hillsdale	4	1	3	55
Houghton	11	12	42	2,445
Huron	9	9	3	595
Ingham	4	6	7	500
Ionia	4	3	6	155
Iosco	2	2	.....	120
Iron	.....	.....	.....	.....
Isabella	2	1	8	330
Jackson	5	6	33	1,205
Kalamazoo	4	5	37	894
Kalkaska	1	.....	1	10
Kent	21	26	55	3,764
Keweenaw	.....	.....	.....	.....
Lake	.....	.....	.....	.....
Lapeer	.....	.....	.....	.....
Leelanau	5	3	9	528
Lenawee	10	8	11	527
Livingston	.....	.....	.....	.....
Luce	.....	.....	.....	.....
Mackinac	2	1	5	135
Macomb	18	18	11	1,285
Manistee	8	6	17	1,349
Marquette	5	1	25	1,300
Mason	5	3	5	325
Mecosta	5	15	7	1,880
Menominee	3	1	6	300
Midland	2	1	5	146
Missaukee	1	3	5	389
Monroe	17	10	21	732
Montcalm	2	2	.....	75
Montmorency	1	1	.....	20
Muskegon	8	6	11	830
Newaygo	2	3	5	173
Oakland	2	1	4	190
Oceana	1	1	.....	50
Ogemaw	.....	.....	.....	.....
Ontonagon	.....	.....	.....	.....
Osceola	3	3	5	358
Oscoda	.....	.....	.....	.....
Otsego	1	1	.....	65
Ottawa	6	2	12	277
Presque Isle	4	4	.....	119
Roscommon	.....	.....	.....	.....
Saginaw	30	53	32	2,155
St. Clair	18	10	33	1,561
St. Joseph	4	4	1	144
Sanilac	3	4	2	337
Schoolcraft	.....	.....	.....	.....
Shiawassee	3	2	4	75
Tuscola	7	6	3	295
Van Buren	.....	.....	.....	.....
Washtenaw	12	12	15	800
Wayne	79	134	257	17,246
Wexford	6	1	10	117

TABLE XII.

Examination and certification of teachers as reported by the county commissioner for the year ending July 1, 1901.

Counties.	Number of public examinations.	Number of applicants for regular certificates.	Number of applicants for special certificates.	Number of applicants receiving certificates.					Number licensed without experience in teaching.	Number of applicants having received Normal School instruction.	Number of applicants having attended institute during the year.	Number of teachers holding certificates issued or indorsed by State board of education.	Number of teachers holding State Normal College certificates.	Number of teachers holding Central Normal School certificates.	Number of teachers holding Northern Normal School certificates.	Number holding certificates issued by county board of examiners.	Number holding certificates issued by city boards of education.	Number of legally qualified teachers in the county, including city teachers.	Number of certificates suspended.	Number of certificates annulled.	Average per cent required for certificates.	
				First grade.	Indorsed first grade.	Second grade.	Third grade.	Special.													Second grade.	Third grade.
Totals	313	13,032	1,007	137	76	2,312	4,489	739	2,048	648	3,608	390	773	298	25	10,261	3,327	15,183	.....	.....	.....	.....
Alcona	4	51	.....	2	2	3	17	.....	3	20	24	6	1	.....	.....	27	.....	33	.....	.....	80	75
Alger	4	25	7	2	2	10	6	7	4	6	10	1	3	1	1	31	.....	36	.....	.....	80	80
Allegan	5	319	39	2	.....	43	95	29	35	.....	96	7	15	2	.....	258	.....	282	.....	.....	80	75
Alpena	3	117	.....	.....	.....	17	44	.....	22	.....	55	1	.....	.....	.....	64	22	88	.....	.....	85	75
Antrim	4	91	6	3	.....	27	30	6	3	.....	41	5	14	1	.....	77	.....	97	.....	.....	85	80
Arenac	4	89	6	1	.....	6	28	5	10	5	32	.....	2	.....	.....	34	.....	67	.....	.....	* 50	* 60
Baraga	3	18	4	1	1	4	11	4	4	4	16	4	2	.....	.....	27	.....	36	.....	.....	80	75
Barry	4	293	9	1	2	61	77	9	27	5	75	6	16	.....	.....	205	.....	227	.....	.....	85	80
Bay	4	106	2	.....	.....	25	25	2	17	5	19	5	.....	8	.....	77	165	252	.....	.....	75	75
Benzie	4	66	3	1	1	13	35	3	20	2	38	.....	10	3	1	99	.....	†	.....	.....	85	80
Berrien	4	299	.....	1	1	41	85	.....	53	11	.....	10	10	2	.....	281	65	346	.....	.....	85	80
Branch	4	282	25	.....	.....	49	78	20	25	3	35	2	9	1	.....	127	.....	*214	.....	.....	70	70
Calhoun	4	299	20	6	.....	58	109	16	42	8	74	* 40	* 24	.....	.....	252	.....	*330	.....	.....	85	80
Cass	4	204	11	4	3	43	48	11	27	10	33	4	7	3	.....	150	20	184	.....	.....	80	75
Charlevoix	4	92	12	2	.....	22	38	12	16	3	49	2	8	10	.....	105	.....	125	.....	.....	85	80
Cheboygan	4	88	23	.....	1	24	27	15	10	1	36	5	4	6	.....	82	17	114	.....	.....	80	75
Chippewa	4	69	5	.....	.....	13	44	4	9	17	60	5	3	1	.....	69	15	102	.....	.....	80	70
Clare	4	65	10	.....	.....	10	23	10	11	2	10	2	4	4	.....	90	.....	98	.....	.....	80	75
Clinton	4	218	15	1	1	52	84	14	43	5	.....	2	8	4	.....	187	4	209	.....	.....	85	75
Crawford	3	17	6	.....	.....	8	7	6	2	.....	16	.....	2	2	.....	26	.....	30	.....	.....	85	75
Delta	4	57	5	.....	.....	14	22	5	6	2	†	4	8	1	2	72	25	112	.....	.....	80	75
Dickinson	1	16	16	.....	.....	4	8	14	2	4	21	2	1	.....	.....	19	.....	91	.....	.....	80	75
Eaton	4	235	2	.....	.....	24	92	2	32	3	45	11	21	5	.....	187	25	228	.....	.....	85	75
Emmet	4	126	9	.....	.....	15	38	8	11	5	* 28	.....	* 18	3	.....	86	13	120	.....	.....	80	75
Genesee	5	207	26	6	4	43	87	26	46	6	* 50	2	* 8	3	.....	236	* 80	328	.....	.....	80	75
Gladwin	2	55	2	.....	.....	7	21	2	8	.....	18	.....	2	3	.....	43	.....	49	.....	.....	80	75
Gogebic	2	19	1	1	1	2	10	1	.....	3	.....	2	13	3	.....	12	57	87	.....	.....	70	60

Grand Traverse	4	100	5	.....	.....	21	37	5	21	3	38	3	28	4	.....	137	8	187	.....	.....	80	75
Gratiot	4	312	35	1	1	46	76	26	50	11	52	26	.....	10	.....	165	.....	190	.....	.....	85	75
Hillsdale	4	305	60	1	1	45	103	35	36	20	87	7	22	.....	.....	260	9	300	.....	.....	80	75
Houghton	3	136	34	8	.....	39	41	16	14	16	50	4	42	.....	1	148	90	284	.....	.....	80	70
Huron	3	230	5	1	2	30	61	5	40	.....	57	3	9	9	.....	133	.....	162	.....	.....	80	75
Ingham	4	343	12	2	2	57	102	6	48	10	34	2	8	5	8	230	65	321	.....	.....	85	80
Ionia	4	274	10	5	3	42	88	4	50	9	†	3	10	7	.....	175	46	221	.....	.....	85	75
Iosco	4	60	4	.....	.....	10	25	4	10	2	20	1	3	.....	.....	50	.....	60	.....	.....	85	75
Iron	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Isabella	4	106	.....	1	1	14	43	.....	26	41	44	1	7	85	.....	98	5	190	.....	.....	85	82
Jackson	5	328	37	.....	1	53	136	27	79	47	153	.....	10	.....	.....	189	90	314	.....	.....	80	80
Kalamazoo	4	289	12	.....	.....	37	99	6	39	21	90	14	45	3	2	198	90	361	.....	.....	85	75
Kalkaska	4	97	.....	2	.....	9	34	.....	20	.....	50	4	1	.....	.....	63	.....	67	.....	.....	85	80
Kent	6	328	.....	6	5	32	143	.....	62	.....	124	2	7	.....	.....	306	387	693	.....	.....	85	85
Keweenaw	2	9	1	.....	.....	6	4	1	2	2	8	1	1	.....	.....	9	.....	13	.....	.....	85	75
Lake	4	46	9	.....	1	9	26	5	15	2	11	4	.....	1	.....	36	.....	48	.....	.....	85	80
Lapeer	3	240	6	2	.....	40	100	4	60	4	100	.....	15	.....	.....	204	20	230	.....	.....	80	75
Leelanau	4	58	5	1	.....	15	24	3	9	4	33	.....	1	2	.....	66	.....	71	.....	.....	85	80
Lenawee	5	405	40	.....	.....	68	123	23	54	8	102	12	12	.....	.....	301	51	376	.....	.....	85	75
Livingston	4	270	6	.....	.....	32	83	5	40	19	75	20	14	.....	.....	160	.....	180	.....	.....	85	80
Luce	4	* 16	* 4	.....	.....	* 5	* 12	* 3	* 7	* 3	* 16	* 4	* 2	.....	1	* 25	.....	* 30	.....	.....	80	75
Mackinac	3	29	* 11	.....	.....	6	16	10	9	5	10	1	.....	2	.....	49	1	53	.....	.....	80	75
Macomb	4	377	16	3	1	46	64	11	30	3	43	16	9	.....	.....	125	27	216	.....	.....	80	75
Manistee	2	95	4	1	1	20	42	4	27	.....	31	1	1	.....	.....	78	76	198	.....	.....	80	75
Marquette	2	29	9	.....	.....	7	13	9	9	.....	.....	3	28	.....	.....	52	118	199	.....	.....	80	75
Mason	4	106	1	1	1	12	42	1	20	.....	44	2	9	7	.....	54	23	120	.....	.....	85	75
Mecosta	4	289	10	8	8	37	80	7	39	.....	109	.....	.....	1	.....	151	23	174	.....	.....	80	75
Menominee	3	107	7	.....	.....	21	59	7	28	13	75	2	.....	.....	.....	113	61	174	.....	.....	80	75
Midland	4	132	* 15	.....	2	13	43	12	21	4	50	22	2	14	.....	94	7	121	.....	.....	80	75
Missaukee	4	84	14	.....	.....	14	34	8	20	12	41	.....	10	1	9	.....	.....	78	.....	.....	85	75
Monroe	4	194	10	.....	.....	118	78	6	* 50	25	125	10	10	.....	.....	194	* 10	221	.....	.....	75	65
Montcalm	4	229	7	1	1	44	87	7	43	6	.....	4	2	6	.....	225	13	250	.....	.....	80	75
Montmorency	4	34	10	.....	.....	3	26	7	2	8	11	6	2	6	.....	37	.....	41	.....	.....	80	75
Muskegon	4	166	36	2	2	28	63	17	33	10	40	9	6	3	.....	162	105	267	.....	.....	85	75
Newaygo	4	208	24	.....	.....	29	83	27	33	6	86	5	9	3	.....	164	.....	180	.....	.....	85	80
Oakland	5	255	8	2	3	62	120	8	60	35	125	6	22	5	.....	310	25	373	.....	.....	85	80
Oceana	4	205	20	4	.....	14	62	15	31	2	52	10	4	3	.....	80	.....	150	.....	.....	85	75
Ogemaw	3	39	7	.....	.....	4	15	7	10	.....	.....	.....	1	.....	.....	53	.....	53	.....	.....	85	75
Ontonagon	4	40	12	2	.....	8	21	10	12	7	6	2	3	.....	.....	31	.....	33	.....	.....	85	75
Oscoda	4	186	15	2	.....	23	43	10	15	6	43	3	8	17	.....	109	.....	137	.....	.....	80	80
Otsego	4	22	2	.....	.....	2	12	2	4	.....	12	.....	.....	.....	.....	20	.....	20	.....	.....	80	75
Ottawa	4	52	11	.....	.....	2	15	11	8	.....	21	1	5	2	.....	40	.....	48	.....	.....	80	70
Presque Isle	4	225	5	3	.....	71	89	2	34	13	84	6	1	.....	.....	222	69	291	.....	.....	85	85
Roscommon	3	24	6	.....	1	5	8	6	3	2	8	1	6	.....	.....	20	2	40	.....	.....	85	75
	4	11	2	.....	.....	3	6	2	1	.....	5	.....	2	.....	.....	13	.....	7	.....	.....	75	70

* Estimated. † No report received.

TABLE XII.—CONCLUDED.

Counties.	Number of public examinations.	Number of applicants for regular certificates.	Number of applicants for special certificates.	Number of applicants receiving certificates.					Number licensed without experience in teaching.	Number of applicants having received Normal School instruction.	Number of applicants having attended Institute during the year.	Number of teachers holding certificates issued or indorsed by State board of education.	Number of teachers holding State Normal College certificates.	Number of teachers holding Central Normal School certificates.	Number of teachers holding Northern Normal School certificates.	Number holding certificates issued by county board of examiners.	Number holding certificates issued by city boards of education.	Number of legally qualified teachers in the county, including city teachers.	Number of certificates suspended.	Number of certificates annulled.	Average per cent required for certificates.	
				First grade.	Indorsed First grade.	Second grade.	Third grade.	Special.													Second grade.	Third grade.
Saginaw	5	308	30	10	2	64	86	22	36	7	92	4	1	6	.....	259	#213	472	.....	.....	75	75
St. Clair	4	283	14	2	.....	29	66	14	18	12	62	.....	12	5	.....	191	60	268	.....	.....	75	75
St. Joseph	3	209	39	6	.....	37	67	34	23	21	.....	9	20	.....	.....	200	.....	229	.....	.....	80	80
Sanilac	4	339	4	.....	.....	55	95	4	46	5	4	6	9	3	.....	143	.....	179	.....	.....	85	80
Schoolcraft	4	98	1	.....	1	26	9	1	1	3	.....	.....	11	1	.....	40	.....	52	.....	.....	85	75
Shiawassee	4	189	25	2	.....	38	75	14	30	22	100	5	15	6	.....	130	50	206	.....	.....	75	70
Tuscola	4	257	26	4	3	42	56	7	31	6	64	2	10	8	.....	184	.....	294	.....	.....	85	80
Van Buren	4	277	18	2	2	49	110	11	40	13	58	12	10	1	.....	241	.....	264	.....	.....	85	75
Washtenaw	4	264	20	5	4	67	113	.....	45	30	85	1	34	.....	.....	294	90	384	.....	.....	80	75
Wayne	5	140	15	8	.....	47	72	13	27	20	55	2	59	5	.....	175	953	1,128	.....	.....	80	75
Wexford	4	165	4	3	3	18	70	4	41	.....	22	1	2	.....	.....	132	32	170	.....	.....	80	75

* Estimated.

TABLE XIII.

Miscellaneous statistics as reported by the county commissioner of schools for the year ending July 1, 1901.

Counties.	Number of meetings of county teachers' associations.	Number of other teachers' meetings.	Number of days devoted to meetings of county board.	Amount allowed by board of supervisors for stationery, etc.	Total amount paid the members of the board other than the commissioner.	Salary of the commissioner.	Amount of institute fees collected.
Totals	178	616	1,032	$10,442 76	$18,648 45	$68,600 00	$10,188 00
Alcona	4	.....	14	$14 50	$112 00	$200 00	$21 00
Alger	.....	10	12	200 00	96 00	300 00	26 00
Allegan	1	15	19	200 00	563 30	1,200 00	237 50
Alpena	1	.....	9	* 52 00	216 00	550 00	39 00
Antrim	2	.....	17	87 00	136 00	600 00	60 00
Arenac	.....	.....	28	75 50	110 00	250 00	27 00
Baraga	1	45	3	20 78	84 00	500 00	15 50
Barry	2	16	12	165 29	288 00	1,200 00	182 50
Bay	3	16	6	300 00	260 00	1,000 00	150 00
Benzie	.....	1	10	75 00	90 00	500 00	43 00
Berrien	2	25	4	200 00	310 00	1,200 00	174 00
Branch	3	35	4	* 125 00	215 00	1,200 00	177 00
Calhoun	3	80	14	200 00	223 00	1,200 00	188 00
Cass	2	.....	14	96 96	325 00	1,000 00	138 50
Charlevoix	4	.....	12	* 150 00	* 96 00	600 00	91 50
Cheboygan	2	.....	12	100 16	276 00	500 00	76 00
Chippewa	7	.....	4	228 00	400 00	800 00	59 50
Clare	1	.....	12	20 00	96 00	500 00	51 00
Clinton	5	3	57	200 00	225 00	1,200 00	143 50
Crawford	.....	.....	3	13 00	24 00	200 00	18 50
Delta	.....	.....	14	43 25	160 00	500 00	56 50
Dickinson	1	.....	3	* 75 00	24 00	900 00	48 00
Eaton	1	3	4	230 07	246 00	1,200 00	178 00
Emmet	2	.....	5	94 00	196 00	600 00	75 50
Genesee	2	6	17	130 91	408 00	1,200 00	245 00
Gladwin	1	.....	2	68 57	80 00	300 00	33 00
Gogebic	.....	20	2	50 60	16 00	450 00	43 00
Grand Traverse	1	5	4	50 00	282 00	600 00	84 00
Gratiot	2	6	12	180 00	250 00	1,200 00	204 50
Hillsdale	3	24	4	200 00	368 00	1,200 00	206 00
Houghton	1	.....	3	56 00	124 00	800 00	194 00
Huron	3	2	3	200 00	232 00	1,000 00	143 00
Ingham	2	.....	41	148 53	332 00	1,350 00	234 00
Ionia	3	5	29	200 00	297 25	1,200 00	160 00
Iosco	2	.....	20	.....	116 00	200 00	37 00
†Iron	.....	.....	.....	.....	.....	.....	.....
Isabella	1	3	4	83 58	129 00	1,000 00	44 50
Jackson	1	4	5	245 44	389 00	1,200 00	231 00
Kalamazoo	2	45	6	190 00	312 00	1,200 00	218 00
Kalkaska	3	.....	12	109 52	.....	500 00	63 00
Kent	5	30	50	200 00	928 00	1,500 00	523 00
Keweenaw	.....	.....	4	7 30	* 40 00	125 00	7 50
Lake	.....	.....	24	* 50 00	192 00	400 00	42 50

* Estimated. † No report received.

TABLE XIII.—CONCLUDED.

Counties.	Number of meetings of county teachers' associations.	Number of other teachers' meetings.	Number of days devoted to meetings of county board.	Amount allowed by board of supervisors for stationery, etc.	Total amount paid the members of the board other than the commissioner.	Salary of the commissioner.	Amount of institute fees collected.
Lapeer	2	20	7	$175 00	$260 00	$1,200 00	$188 00
Leelanau	2	8	4	53 67	160 00	600 00	36 00
Lenawee	2	20	6	225 79	254 00	1,200 00	279 00
Livingston	4	12	4	90 00	200 00	1,200 00	198 00
Luce	.....	.....	* 12	* 25 00	* 48 00	200 00	* 15 00
Mackinac	.....	.....	9	.....	120 00	500 00	25 50
Macomb	1	2	46	200 00	368 00	1,100 00	207 00
Manistee	.....	.....	6	20 00	149 00	600 00	108 50
Marquette	.....	10	6	196 25	66 50	1,500 00	99 50
Mason	.....	2	14	200 00	199 00	600 00	89 00
Mecosta	10	6	6	200 00	260 00	1,000 00	173 00
Menominee	.....	1	9	43 55	60 00	1,000 00	106 50
Midland	2	1	5	* 100 00	151 00	500 00	74 50
Missaukee	3	3	14	* 24 00	.....	650 00	38 00
Monroe	4	.....	36	250 00	288 00	1,200 00	133 00
Montcalm	4	.....	16	200 00	287 00	1,200 00	156 50
Montmorency	.....	.....	16	18 00	128 00	300 00	20 00
Muskegon	.....	7	7	89 95	359 40	1,200 00	129 00
Newaygo	4	.....	* 50	200 00	* 600 00	1,000 00	103 00
Oakland	5	.....	8	275 00	312 00	1,200 00	207 50
Oceana	1	* 30	14	* 120 00	396 00	750 00	84 00
Ogemaw	3	.....	10	.....	80 00	300 00	15 00
Ontonagon	3	* 10	12	21 50	96 00	325 00	36 50
Osceola	2	.....	4	200 00	256 00	1,000 00	114 50
Oscoda	.....	.....	12	65 00	96 00	200 00	14 50
Otsego	1	.....	31	50 00	124 00	500 00	32 50
Ottawa	9	.....	24	102 13	192 00	1,000 00	138 50
Presque Isle	8	4	9	100 00	100 00	400 00	12 00
Roscommon	.....	.....	12	10 00	84 00	200 00	11 50
Saginaw	1	.....	15	124 70	648 00	1,200 00	294 50
St. Clair	2	6	9	250 00	354 00	1,500 00	207 50
St. Joseph	1	35	6	200 00	200 00	1,200 00	163 00
Sanilac	15	5	4	147 00	300 00	1,200 00	145 50
Schoolcraft	.....	.....	16	200 00	128 00	500 00	45 50
Shiawassee	2	4	4	200 00	240 00	1,200 00	171 00
Tuscola	1	30	4	200 00	248 00	1,200 00	179 50
Van Buren	1	11	4	* 175 00	252 00	1,200 00	204 00
Washtenaw	1	.....	4	200 00	296 00	1,200 00	188 00
Wayne	3	.....	15	156 75	772 00	1,500 00	643 00
Wexford	2	.....	8	200 00	250 00	750 00	111 00

* Estimated.

TABLE XIV.

Condition of schools and school houses as reported by the county commissioner of schools for the year ending July 1, 1901.

Counties.	Number of districts visited by the commissioner during the year.	Total number of visits made by commissioner during the year.	Number of visits made by assistant visitor during the year.	Number of schools supplied with dictionaries.	Number of schools supplied with maps.	Number of schools supplied with globes.	Number of school houses properly heated and ventilated.	Number of schools having uniform text-books in each branch.	Number of schools having a prescribed course of study.	Number of schools properly classified.	Number of schools in which physiology, etc., is taught.	Number of districts that have adopted text-books in physiology.	Number of districts that have taught communicable diseases according to law.	Number of districts furnishing free text-books.
Totals	6,987	10,593	155	6,654	6,436	5,609	3,518	6,364	3,374	6,518	7,214	6,226	5,242	778
Alcona	24	29	.....	27	27	27	1	27	.....	24	27	27	27	6
Alger	7	27	.....	26	23	23	2	27	.....	.....	27	27	.....	27
Allegan	170	200	.....	181	172	160	165	150	50	160	140	170	152	9
Alpena	41	41	.....	36	38	24	.....	27	.....	50	52	* 40	52	....
Antrim	72	75	.....	70	70	71	5	* 62	5	67	73	.....	73	*23
Arenac	39	42	20	38	38	35	35	32	4	34	39	39	35	3
Baraga	5	28	.....	17	17	18	18	18	2	18	18	18	18	5
Barry	142	196	.....	*130	125	87	125	130	*145	145	145	145	145	1
Bay	69	110	.....	65	64	65	15	66	2	63	69	69	69	21
Benzie	49	105	.....	* 35	36	30	10	30	30	40	48	35	49	7
Berrien	143	185	.....	135	125	120	.....	144	144	144	144	*100	.....	12
Branch	126	211	.....	* 75	* 60	* 60	20	60	5	110	126	126	* 90	....
Calhoun	163	291	.....	156	145	136	* 80	*150	* 10	*120	163	*163	163	8
Cass	110	110	.....	106	97	90	* 75	72	* 30	110	110	110	* 50	....
Charlevoix	65	102	.....	64	64	64	15	60	66	60	64	64	64	17
Cheboygan	56	75	.....	55	60	49	30	58	10	62	62	* 45	.....	27
Chippewa	67	90	.....	37	60	25	40	50	65	70	80	80	80	6
Clare	44	60	.....	32	38	28	2	53	.....	50	50	50	50	15
Clinton	125	225	15	129	110	65	100	129	129	129	129	129	129	5
Crawford	21	44	.....	23	* 19	* 19	23	23	1	13	23	10	* 15	*12
Delta	50	100	1	30	45	30	45	48	20	46	51	51	51	3
Dickinson	6	*200	.....	20	20	16	25	24	25	25	25	22	25	6
Eaton	137	300	.....	* 80	* 80	* 75	†	137	137	137	137	137	137	2
Emmet	67	82	1	62	58	30	9	71	6	†	71	†	†	12
Genesee	151	168	.....	*140	*152	*135	* 12	*150	* 6	*150	*140	* 75	*100	2
Gladwin	33	35	.....	34	34	32	34	.....	.....	34	34	†	†	6
Gogebic	5	25	.....	31	35	20	20	7	3	20	23	23	* 8	5
Gd. Traverse	66	150	.....	* 60	66	63	4	* 60	5	5	66	66	* 60	10
Gratiot	132	145	.....	130	98	96	14	*130	*130	125	132	*132	†	2
Hillsdale	166	190	.....	160	160	150	100	160	12	140	166	166	166	....
Houghton	27	36	.....	27	27	27	23	20	21	27	26	16	25	10
Huron	114	141	.....	70	104	95	12	108	114	114	114	114	114	16
Ingham	135	182	.....	121	113	72	11	71	91	54	132	126	* 84	....
Ionia	141	207	.....	*130	*136	*124	*100	*120	*125	*100	†	*124	*100	2
Iosco	25	25	.....	23	20	25	2	20	4	16	25	25	25	8
†Iron	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Isabella	102	271	.....	77	* 75	* 50	* 40	* 90	3	102	102	* 90	* 75	7
Jackson	185	217	3	102	91	76	118	130	82	138	140	142	128	...
Kalamazoo	137	233	.....	128	125	127	16	125	†	135	135	129	†	8
Kalkaska	47	55	.....	50	30	40	†	50	2	50	50	50	50	23
Kent	150	153	47	250	238	240	147	200	206	175	206	206	150	3
Keweenaw	9	9	.....	10	10	10	10	10	†	10	10	10	10	....
Lake	45	102	.....	38	39	38	1	21	3	20	45	40	45	8

* Estimated. † No report received.

TABLE XIV.—CONCLUDED.

Counties.	Number of districts visited by the commissioner during the year.	Total number of visits made by commissioner during the year.	Number of visits made by assistant visitor during the year.	Number of schools supplied with dictionaries.	Number of schools supplied with maps.	Number of schools supplied with globes.	Number of school houses properly heated and ventilated.	Number of schools having uniform text-books in each branch.	Number of schools having a prescribed course of study.	Number of schools properly classified.	Number of schools in which physiology, etc., is taught.	Number of districts that have adopted text-books in physiology.	Number of districts that have taught communicable diseases according to law.	Number of districts furnishing free text-books.
Lapeer	109	140	30	130	105	103	25	75	20	90	100	* 95	75	1
Leelanau	59	148	.....	57	43	34	58	59	3	20	69	59	59	4
Lenawee	116	135	.....	191	185	170	96	190	* 50	187	195	195	*125	3
Livingston	135	230	.....	126	98	102	25	80	25	130	135	135	135	.....
Luce	* 9	* 9	.....	10	10	10	11	12	2	8	8	8	.....	12
Mackinac	25	26	.....	* 35	* 40	* 15	* 30	* 40	* 20	* 35	* 45	* 20	†	8
Macomb	115	180	.....	115	115	115	115	115	115	115	115	115	115	.....
Manistee	57	82	.....	54	54	56	57	56	56	57	56	3	50	10
Marquette	16	120	.....	30	35	15	.....	36	.....	36	36	36	36	15
Mason	65	142	.....	70	68	64	62	62	63	60	60	65	10	23
Mecosta	105	288	.....	103	98	83	100	94	* 35	*100	105	105	105	16
Menominee	34	108	.....	69	69	60	5	69	69	69	69	69	†	29
Midland	75	* 65	.....	70	* 60	4	70	2	70	70	70	* 50	73	* 6
Missaukee	53	60	.....	* 45	* 49	50	50	49	†	†	53	* 54	* 54	30
Monroe	140	150	.....	120	100	50	5	120	* 10	135	137	†	* 50	1
Montcalm	140	225	.....	*130	*125	95	50	125	90	*100	138	†	†	4
Montmorency	26	26	.....	20	26	22	3	12	2	21	26	26	26	12
Muskegon	92	156	.....	78	70	71	24	73	16	45	63	61	* 35	15
Newaygo	113	113	.....	*100	*100	*100	4	* 90	4	113	113	113	* 90	35
Oakland	205	225	.....	192	180	155	*160	200	205	180	207	207	207	.....
Oceana	88	*150	.....	86	60	84	3	85	5	80	87	* 50	87	3
Ogemaw	41	43	.....	38	40	30	.....	42	1	42	45	45	†	4
Ontonagon	27	39	.....	26	26	24	6	7	5	14	27	27	24	2
Osceola	94	164	.....	90	92	91	2	89	* 80	93	93	94	93	20
Oscoda	12	12	.....	12	10	10	10	6	.....	10	12	12	12	2
Otsego	36	50	.....	35	34	38	40	37	40	40	40	40	40	17
Ottawa	120	163	.....	120	120	110	90	120	90	105	115	31	112	18
Presque Isle	40	60	.....	38	38	39	20	23	10	36	40	40	40	20
Roscommon	10	10	.....	8	10	7	1	8	1	12	12	* 9	* 6	3
Saginaw	148	163	.....	147	144	133	153	154	9	154	154	154	154	39
St. Clair	150	250	.....	145	145	130	100	140	* 50	150	152	* 30	* 25	7
St. Joseph	123	240	.....	117	115	85	75	100	123	123	123	*120	*100	1
Sanilac	141	193	.....	112	132	82	92	125	66	70	145	145	20	8
Schoolcraft	20	22	8	20	20	13	7	27	1	26	26	26	18	17
Shiawassee	123	160	.....	105	85	57	14	*120	.....	110	123	*115	*110	.....
Tuscola	142	203	.....	128	139	106	*130	148	149	140	147	143	149	7
Van Buren	152	224	.....	*130	*100	*130	125	*100	†	152	152	152	†	2
Washtenaw	162	164	.....	120	126	98	6	125	*100	150	164	164	162	1
Wayne	153	285	30	144	149	131	118	151	18	270	260	153	153	.....
Wexford	78	98	.....	78	77	76	72	78	78	78	78	78	78	46

* Estimated. † No report received.

TABLE XV.

Showing the extent to which physiology was taught in the schools of the State during the year ending September 2, 1901, as compiled from directors' reports.

Counties.	Number of districts in county.	Number of districts reporting physiology taught.	Number of districts reporting physiology not taught.	Number of districts not reporting.	Counties.	Number of districts in county.	Number of districts reporting physiology taught.	Number of districts reporting physiology not taught.	Number of districts not reporting.
Totals	7,171	6,232	251	688	Kent	207	190	9	8
					Keweenaw	5	2	1	2
					Lake	42	36	3	3
					Lapeer	135	103	10	22
Alcona	28	24	2	2					
Alger	7	7	.....	.....	Leelanau	58	53	2	3
Allegan	185	152	7	26	Lenawee	196	189	4	3
Alpena	17	13	.....	4	Livingston	135	89	15	31
Antrim	73	64	3	6	Luce	4	4	.....	.....
Arenac	39	33	2	4	Mackinac	16	13	.....	3
Baraga	5	5	.....	.....	Macomb	115	104	1	10
Barry	145	128	6	11	Manistee	60	53	.....	7
Bay	68	58	1	9	Marquette	19	19	.....	.....
Benzie	50	45	3	2	Mason	63	52	.....	11
Berrien	147	117	7	23	Mecosta	104	93	.....	11
Branch	128	120	3	5	Menominee	35	31	3	1
Calhoun	164	136	4	24	Midland	74	59	5	10
Cass	112	105	1	6	Missaukee	52	41	1	10
Charlevoix	67	58	4	5	Monroe	138	102	7	29
Cheboygan	56	53	.....	3	Montcalm	140	116	8	16
Chippewa	50	41	.....	9	Montmorency	7	7	.....	.....
Clare	51	43	4	4	Muskegon	91	77	1	13
Clinton	129	110	4	15	Newaygo	118	106	5	7
Crawford	21	10	.....	11	Oakland	207	199	7	1
Delta	27	26	.....	1	Oceana	89	86	1	2
Dickinson	8	8	.....	.....	Ogemaw	41	35	3	3
Eaton	146	124	2	20	Ontonagon	9	9	.....	.....
Emmet	72	63	4	5	Osceola	92	82	4	6
Genesee	160	152	4	4	Oscoda	12	10	2	.....
Gladwin	38	25	3	10	Otsego	41	39	1	1
Gogebic	7	7	.....	.....	Ottawa	122	117	5	.....
Grand Traverse	66	52	3	11	Presque Isle	34	28	2	4
Gratiot	133	117	1	15	Roscommon	14	12	1	1
Hillsdale	162	141	2	19	Saginaw	160	155	2	3
Houghton	31	23	1	7	St. Clair	154	137	3	14
Huron	114	98	.....	16	St. Joseph	123	99	8	16
Ingham	137	109	4	24	Sanilac	150	133	2	15
Ionia	143	109	13	21	Schoolcraft	11	8	.....	3
Iosco	27	19	2	6	Shiawassee	124	117	4	3
Iron	8	7	1	.....	Tuscola	149	134	1	14
Isabella	103	93	2	8	Van Buren	153	144	7	2
Jackson	157	139	9	9	Washtenaw	167	158	6	3
Kalamazoo	138	107	9	22	Wayne	155	134	4	17
Kalkaska	50	43	.....	7	Wexford	81	73	2	6

TABLE XVI.

Graded school statistics compiled from inspectors'

Districts.	Counties.	Number of children between 5 and 20 years.	Number of children that attended school during the year.	Number of days' school.	Percentage of attendance.	Estimated valuation of school property.	Total indebtedness.	Number of teachers employed.	
								Men.	Women.
Totals		421,459	296,052	117,781	75	$15,805,263	$2,168,941 65	1,001	5,857
Acme	G'd Traverse	110	84	180	40	$1,000			2
Ada	Kent	114	99	180	67	5,500		1	2
Addison	Lenawee	175	196	173	77	800		2	2
Adrian	Lenawee	2,547	1,729	194	92	147,000		3	39
Akron	Tuscola	109	134	200	67	3,000	$1,300 00	1	2
Alabaster	Iosco	142	90	180	33	1,500			1
Alanson	Emmet	148	119	180	63	2,500	500 00		3
Alaska	Kent	83	67	180	53	2,000		1	1
Alba	Antrim	173	132	180	62	5,000		1	2
Albion	Calhoun	1,244	965	180	93	65,000	4,000 00	3	23
Algonac	St. Clair	495	335	180	80	11,500	1,900 00	1	7
Alden	Antrim	163	157	120	60	3,500	3,000 00	1	1
Allegan	Allegan	647	648	190	95	35,000	10,000 00	3	14
Allen	Hillsdale	67	42	180	79	8,000		1	2
Alma	Gratiot	603	599	200	88	20,000	5,000 00	1	11
Almont	Lapeer	280	251	199	79	13,500		1	8
Alpena	Alpena	4,325	2,036	193	95	84,600		3	41
Ann Arbor	Washtenaw	3,197	2,165	188	96	245,000	22,242 16	9	63
Applegate	Sanilac	132	120	180	43	700		2	
Armada	Macomb	252	170	180	87	1,000		2	3
Arcadia	Manistee	164	100	174	69	2,000	34 17	1	2
Ashley	Gratiot	214	177	190	63	2,800		1	2
Athens	Calhoun	178	136	180	91	4,000		2	3
Atlantic Mine	Houghton	1,129	764	200	74	17,000		4	12
Attica	Lapeer	120	89	200	38	1,200		1	1
Au Gres	Arenac	207	120	180	60	3,000	2,000 00		3
Augusta	Kalamazoo	173	123	180	96	3,000		1	4
Au Sable	Iosco	608	516	180	80	7,000		1	8
Au Train	Alger	129	101	166	94	2,900		1	6
Bad Axe	Huron	482	405	200	86	20,000	10,000 00	1	10
Baldwin	Lake	150	113	200	88	1,200	1,159 67	1	2
Bancroft	Shiawassee	138	114	192	92	6,000		1	3
Bangor	Van Buren	354	328	190	93	9,500		2	7
Bannister	Gratiot	98	89	180	69	1,200		1	1
Bainbridge	Berrien	116	85	150	52	2,000	240 00	1	1
Baraga	Baraga	862	553	168	64	10,000		1	9
Baroda	Berrien	174	124	160	73	3,500	900 00	1	2
Barryton	Mecosta	167	132	200	53	1,500		1	1
Bath	Clinton	89	82	180	74	4,000		1	2
Bark River	Delta	113	77	160	59	2,200	1,300 00		2
Battle Creek	Calhoun	4,475	3,376	190	96	275,000		6	72
Bay City	Bay	8,842	4,676	197	97	310,000		7	112
Bay Port	Huron	94	82	190	62	1,500	450 00	2	1
Bear Lake	Manistee	168	139	160	77	2,000		1	5
Beaverton	Gladwin	344	300	175	89	1,000	267 71	2	2
Bedford Tp. 6	Calhoun	79	64	178	81	1,200		1	1
Belding	Ionia	714	637	200	70	16,000	3,000 00	1	14
Bellaire	Antrim	437	346	170	73	7,500		1	7

TABLE XVI.

reports for the year ending September 2, 1901.

Aggregate number of months taught by all teachers.		Total wages of teachers for the year.		Average monthly wages of teachers.		Amount paid for superintendence and instruction.	Total cost of school.	Number of non-resident pupils.	Tuition of non-resident pupils.
Men.	Women.	Men.	Women.	Men.	Women.				
9,246.4	55,969.6	$683,731 62	$2,513,542 64	$73 94	$44 91	$3,197,049 53	$5,801,514 38	9,096	$85,216 29
.....	17	.....	$550 00	.....	$32 35	$550 00	$627 45	.....	.....
9	18	$405 00	477 00	$45 00	26 50	882 00	1,192 49	2	$10 00
18	18	915 00	495 00	50 83	27 50	1,410 00	1,812 87	32	257 70
30	390	3,300 00	16,240 00	110 00	41 64	19,540 00	30,803 56	60	1,111 17
10	10	450 00	305 00	45 00	30 50	755 00	874 36	7	44 00
.....	9	.....	315 00	.....	35 00	315 00	474 20	.....	.....
.....	27	.....	810 00	.....	30 00	810 00	1,088 00	1	3 00
9	3	315 00	66 00	35 00	22 00	381 00	437 81	4	7 25
9	18	540 00	570 00	60 00	31 67	1,110 00	1,417 38	4	11 00
28.5	218.5	2,900 00	8,224 00	101 75	36 27	11,124 00	17,363 92	47	630 87
9	57	720 00	1,860 00	80 00	32 63	2,580 00	3,813 37	8	15 00
6	6	210 00	180 00	35 00	30 00	390 00	3,435 87	.....	.....
28.5	133	2,250 00	4,895 50	78 95	36 81	7,145 50	13,677 46	40	243 95
9	18	500 00	405 00	55 56	22 50	905 00	1,100 76	26	183 08
10	110	850 00	3,812 50	85 00	34 66	4,662 50	7,305 98	35	325 34
10	50	700 00	1,670 00	70 00	33 40	2,370 00	3,191 90	27	277 12
30	410	3,200 00	15,313 50	106 67	37 35	18,513 50	25,440 37	.....	.....
90	610	9,775 00	28,069 83	108 61	46 01	37,844 83	69,398 26	229	6,588 38
18	.....	540 00	.....	30 00	.....	540 00	713 66	1	.....
18	27	895 00	905 00	49 72	33 52	1,800 00	2,442 62	40	444 23
4	14	160 00	515 00	40 00	36 79	675 00	872 16	.....	.....
9.5	19	427 50	570 00	45 00	30 00	997 50	1,431 81	6	1 95
8.7	27	535 00	810 00	61 14	30 00	1,345 00	2,188 68	11	75 87
37.7	119.5	2,993 00	6,045 00	79 28	50 59	9,038 00	19,694 30	12	.....
10	10	400 00	250 00	40 00	25 00	650 00	790 62	4	28 00
.....	17	.....	630 25	.....	37 07	630 25	1,218 85	.....	.....
9	36	450 00	1,080 00	50 00	30 00	1,530 00	2,042 70	17	104 57
9	72	720 00	2,395 25	80 00	33 27	3,115 25	3,730 33	.....	.....
6	44	390 00	1,860 00	65 00	42 27	2,250 00	3,180 87	.....	.....
10	100	850 00	3,110 00	85 00	31 10	3,960 00	6,684 29	21	202 50
10	17.2	413 75	531 25	41 37	30 80	945 00	1,159 71	1	.....
10	30	700 00	900 00	70 00	30 00	1,600 00	2,285 77	26	198 83
19	65.5	1,200 00	1,847 50	63 16	28 21	3,047 50	4,041 93	67	493 57
9	9	342 00	225 00	38 00	25 00	567 00	686 92	7	27 34
7.5	4	300 00	100 00	40 00	25 00	400 00	1,162 66	.....	.....
10	80	1,200 00	3,500 00	120 00	43 75	4,700 00	7,506 82	.....	.....
8	16	380 00	536 00	47 50	33 50	916 00	1,543 23	4	20 75
10	10	430 00	320 00	43 00	32 00	750 00	936 37	.....	.....
4	18	100 00	675 00	25 00	37 50	775 00	1,282 10	15	82 09
.....	13	.....	470 00	.....	36 15	470 00	2,921 97	3	.....
60	720	5,525 00	30,747 65	92 08	42 71	36,272 65	69,027 38	61	758 90
70	1,120	7,585 75	47,942 01	108 37	42 80	55,527 76	82,920 29	59	764 51
9.5	9.5	451 50	284 75	47 21	29 98	736 25	965 12	.....	.....
8	18	480 00	608 00	60 00	33 78	1,088 00	1,425 38	4	38 40
15	18	585 00	630 00	39 00	35 00	1,215 00	2,294 66	12	.....
9	9	360 00	270 00	40 00	30 00	630 00	742 42	8	39 75
10	140	950 00	4,975 00	95 00	35 39	5,925 00	11,347 86	24	301 43
9	60	720 00	2,067 00	80 00	34 45	2,787 00	3,573 34	9	76 28

TABLE XVI.—CONTINUED.

Districts.	Counties.	Number of children between 5 and 20 years.	Number of children that attended school during the year.	Number of days' school.	Percentage of attendance.	Estimated valuation of school property.	Total intebtedness.	Number of teachers employed.	
								Men.	Women.
Belleville	Wayne	126	102	200	90	$10,000		1	2
Bellevue	Eaton	239	236	190	80	6,000	$1,032 78	1	7
Benton Harbor	Berrien	1,770	1,567	180	96	70,000	21,895 02	4	28
Benton Tp. 5 fl	Berrien	195	117	180	77	3,000		1	2
Benzonia	Benzie	248	196	180	56	5,000	2,400 00	1	4
Berlamont	Van Buren	92	78	180	61	1,500		1	1
Berlin	Ottawa	115	100	180	85	1,200			2
Berrien Springs	Berrien	190	160	180	93	6,000		1	5
Bessemer	Gogebic	935	848	186	90	40,000	9,000 00	1	21
Big Rapids	Mecosta	1,439	1,098	200	96	40,000		1	24
Birmingham	Oakland	377	277	200	73	12,000		1	8
Blissfield Tp. 1 fl	Lenawee	202	123	200	97	6,000		2	3
Blissfield Tp. 2 fl	Lenawee	208	159	200	95	5,000		1	4
Bloomingdale	Van Buren	147	116	180	85	6,000		1	3
Borculo	Ottawa	161	115	200	40	750		1	1
Boyne	Charlevoix	462	383	180	66	7,500	2,000 00	1	7
Boyne Falls	Charlevoix	194	134	180	88	4,000	3,276 00	1	3
Breckenridge	Gratiot	127	122	174	60	3,500	2,500 00	1	2
Breedsville	Van Buren	122	98	180	54	1,200		3	1
Bridgehampton Tp. 1	Sanilac	90	88	180	39	600		1	
Bridgehampton Tp. 2	Sanilac	103	87	200	54	900		1	1
Bridgehampton Tp. 5 fl	Sanilac	81	80	176	58	1,000		1	
Bridgeman	Berrien	170	117	150	73	4,000	2,715 00	1	1
Bridgeport	Saginaw	136	75	178	81	3,500		1	1
Brighton	Livingston	222	204	195	83	1,600		1	5
Britton	Lenawee	119	98	180	81	3,000		1	2
Bronson	Branch	305	264	190	83		9,000 00	2	4
Brooklyn	Jackson	152	155	190	86	5,000		2	3
Brookside	Newaygo	93	73	180	56	1,000		1	1
Brown City	Sanilac	231	169	200	93	8,000	7,000 00	2	2
Buchanan	Berrien	439	417	190	96	2,500		2	11
Buena Vista Tp. 4	Saginaw	101	54	175	66	1,500	250 00		1
Buena Vista Tp. 6	Saginaw	607	255	200	68	5,500		1	3
Burlington	Calhoun	118	103	180	67	1,300		1	4
Burnips Corners	Allegan	88	83	180	78	2,000		1	1
Burnside	Lapeer	95	66	200	78	1,000		1	1
Burr Oak	St. Joseph	221	129	174	90	10,000		2	5
Byron	Shiawassee	135	113	190	88	7,000	3,700 00	1	2
Byron Center	Kent	111	89	180	84	2,000		1	1
Cadillac	Wexford	1,860	1,605	180	89	65,000	8,000 00	1	34
Cady	Macomb	142	53	180	47	1,000			1
Caledonia	Kent	160	136	200	86	6,500		2	2
Calumet	Houghton	7,960	5,240	200	77	31,000		6	100
Calumet Tp. 2	Houghton	1,126	803	200	75	11,350		1	13
Camden	Hillsdale	111	85	180	86	7,000	6,000 00	1	1
Cambria	Hillsdale	82	67	180	79	3,000		1	2
Cannon Tp. 2 fl	Kent	112	88	180	85	1,200		1	1
Capac	St. Clair	222	180	196	81	7,500		1	4
Carleton	Monroe	152	120	200	90	1,000		1	2
Carney	Menominee	184	126	180	62	2,500	1,200 00	1	1
Caro	Tuscola	607	560	200	79	30,000		3	10
Carrollton Tp. 1	Saginaw	403	282	188	64	10,000		1	8
Carrollton Tp. 2	Saginaw	290	134	200	61	2,400		1	1
Carson City	Montcalm	296	282	190	63	11,000	9,000 00	1	6
Carsonville	Sanilac	221	149	200	67	2,200		1	2
Caseville	Huron	279	186	200	65	5,000		1	2
Casnovia	Muskegon	84	56	178	77	2,800		1	2
Cass City	Tuscola	432	373	200	91	10,000		2	7

TABLE XVI.—CONTINUED.

Aggregate number of months taught by all teachers.		Total wages of teachers for the year.		Average monthly wages of teachers.		Amount paid for superintendence and instruction.	Total cost of school.	Number of non-resident pupils.	Tuition of non-resident pupils.
Men.	Women.	Men.	Women.	Men.	Women.				
10	20	$650 00	$500 00	$65 00	$25 00	$1,150 00	$1,593 85	11	$63 40
9.5	66.5	900 00	1,924 00	94 74	28 93	2,824 00	3,793 44	32	187 75
36	252	2,815 02	9,859 95	78 20	39 12	12,674 97	22,228 31	41	475 34
8	18	400 00	585 00	50 00	32 50	985 00	1,362 40	3	7 00
9	36	315 00	1,300 00	35 00	36 11	1,615 00	2,241 34	5	27 45
9	9	300 00	220 00	33 33	24 44	520 00	904 04	2	.....
.....	18	.....	810 00	.....	45 00	810 00	941 99	20	46 75
9	41	800 00	1,471 25	88 89	36 10	2,271 25	3,099 62	20	280 83
9.5	199.5	1,200 00	9,394 75	126 31	47 09	10,594 75	23,289 69	.....	.....
10	240	1,200 00	9,860 00	120 00	41 08	11,060 00	14,118 71	19	141 77
10	70	1,000 00	2,675 00	100 00	38 21	3,675 00	4,864 18	63	621 55
10	30	620 00	770 00	62 00	25 67	1,390 00	1,845 61	9	83 25
10	40	750 00	1,225 00	75 00	30 62	1,975 00	2,804 97	22	138 70
9	27	500 00	756 00	55 55	28 00	1,256 00	1 934 23	10	85 25
10	5.5	380 00	110 00	38 00	20 00	490 00	740 74	.....	.....
9	62	585 00	2,030 00	65 00	32 74	2,615 00	4,202 41	3	30 25
9	27	450 00	990 00	50 00	36 67	1,440 00	5,643 18	.....	.....
9	18	450 00	495 00	50 00	27 50	945 00	1,507 40	8	47 00
8.7	9	383 75	297 00	43 86	33 00	680 75	825 25	3	14 00
9	.....	315 00	.....	35 00	.....	315 00	509 72	4	.....
6	10	240 00	280 00	40 00	28 00	520 00	689 10	5	.....
9	.....	315 00	.....	35 00	.....	315 00	426 30	.....	.....
7.5	7.5	320 00	235 00	42 67	31 33	555 00	2,015 10	.....	.....
9	9	360 00	270 00	40 00	30 00	630 00	746 73	3	3 00
10	50	850 00	1,500 00	85 00	30 00	2,350 00	3,107 22	19	210 50
9	9	405 00	270 00	45 00	30 00	675 00	829 14	6	11 00
19	38	997 50	1,235 00	52 50	32 50	2,232 50	7,033 54	23	200 89
19	28.5	1,200 00	1,000 00	63 16	35 09	2,200 00	3,150 46	41	266 95
9	4.5	324 00	90 00	36 00	20 00	414 00	473 84	.....	.....
20	20	825 00	550 00	41 25	27 50	1,375 00	2,174 57	14	56 35
19	104.5	1,522 50	3,875 00	80 13	37 08	5,397 50	8,175 33	30	336 22
.....	9	.....	270 00	.....	30 00	270 00	362 91	.....	.....
10	30	450 00	1,050 00	45 00	35 00	1,500 00	2,857 25	3	.....
9	18	380 00	459 97	42 22	25 55	839 97	1,117 25	7	21 45
9	9	405 00	270 00	45 00	30 00	675 00	799 33	7	59 10
10	6	400 00	114 00	40 00	19 00	514 00	655 32	7	39 50
18	45	825 00	1,391 50	45 83	30 92	2,216 50	2,877 71	33	423 71
10	20	575 00	625 00	57 50	31 25	1,200 00	2,062 65	27	137 86
9	9	450 00	234 00	50 00	26 00	684 00	866 61	6	26 00
9	306	1,858 56	14,490 75	206 51	47 35	16,349 31	27,387 73	.....	.....
.....	9	.....	315 00	.....	35 00	315 00	349 12	5	.....
20	20	800 00	600 00	40 00	30 00	1,400 00	1,843 30	25	139 62
59	980	7,300 00	56,660 81	123 73	57 82	63,960 81	97,613 96	17	365 05
10	125	1,100 00	7,112 50	110 00	56 90	8,212 50	13,718 77	.....	.....
9	9	450 00	225 00	50 00	25 00	675 00	5,355 31	13	64 15
9	18	450 00	450 00	50 00	25 00	900 00	1,027 70	6	29 31
9	9	450 00	270 00	50 00	30 00	720 00	791 57	14	81 04
10	40	600 00	1,000 00	60 00	25 00	1,600 00	2,267 46	25	317 51
10	20	450 00	625 00	45 00	31 25	1,075 00	1,391 20	10	100 00
9	9	450 00	405 00	50 00	45 00	855 00	1,384 35	3	.....
28	92	1,630 00	3,160 00	36 79	34 35	4,790 00	7,272 70	48	394 20
10	50	650 00	1,245 00	65 00	24 90	1,895 00	2,625 92	.....	.....
10	10	500 00	350 00	50 00	35 00	850 00	1,081 98	.....	.....
9.5	57	825 00	2,052 00	86 84	36 00	2,877 00	4,528 32	20	297 73
10	20	500 00	500 00	50 00	25 00	1,000 00	1,246 37	5	.....
10	20	700 00	600 00	70 00	30 00	1,300 00	1,727 38	4	.....
9	18	540 00	565 00	60 00	31 39	1,105 00	1,244 32	21	130 50
10	60	750 00	2,052 00	75 00	34 17	2,802 00	4,496 88	29	316 94

TABLE XVI.—CONTINUED.

Districts.	Counties.	Number of children between 5 and 20 years.	Number of children that attended school during the year.	Number of days' school.	Percentage of attendance.	Estimated valuation of school property.	Total indebtedness.	Number of teachers employed.	
								Men.	Women.
Cassopolis	Cass	394	333	190	83	$18,000		1	8
Cedar Springs	Kent	289	279	190	86	20,000		1	7
Central Lake	Antrim	355	321	158	63	7,000	$4,000 00	1	4
Centreville	St. Joseph	177	153	170	83	1,500	203 57	2	4
Ceresco	Calhoun	73	61	180	68	1,200		1	1
Chandler Tp. 5 fl	Huron	196	117	177	56	1,000	500 00		2
Charlevoix	Charlevoix	814	684	175	74	35,000	18,000 00	1	12
Charlotte	Eaton	887	892	186	96	40,000		2	22
Chase	Lake	141	101	196	47	1,500		2	2
Chassell	Houghton	218	179	200	64	4,000	200 00	1	2
Cheboygan	Cheboygan	2,355	1,898	188	91	65,000	41,000 00	6	21
Chelsea	Washtenaw	452	353	200	95	15,000		1	11
Chesaning	Saginaw	316	302	200	94	1,200		1	7
Chickaming Tp. 3	Berrien	111	81	160	57	1,221	700 00	1	1
China Tp. 4	St. Clair	105	96	190	75	1,200		1	1
Clare	Clare	560	465	200	71	25,000	10,000 00	2	7
Clarkston	Oakland	158	119	200	87	4,000		2	3
Clarksville	Ionia	117	97	175	84	4,000			2
Clayton	Lenawee	114	102	180	80	3,000		1	3
Climax	Kalamazoo	132	126	180	87	4,000		2	2
Clinton	Lenawee	272	236	190	95	5,000		1	6
Clio	Genesee	198	163	200	90	6,000	2,000 00	3	5
Coldwater	Branch	1,633	1,047	200	96	95,000	1,000 00	4	23
Coleman	Midland	413	325	200	92	12,000		2	6
Coloma	Berrien	250	248	180	74	7,000	3,400 00	1	4
Colon	St. Joseph	268	194	180	61	2,500		2	6
Columbiaville	Lapeer	139	125	195	80	1,600		1	3
Commerce	Oakland	64	49	180	75	800		1	1
Comstock	Kalamazoo	100	61	180	86	3,000		1	1
Concord	Jackson	156	104	190	96	7,000		2	3
Conklin	Ottawa	85	71	180	84	1,075		1	2
Constantine	St. Joseph	264	201	200	79	25,000	400 41	1	7
Coopersville	Ottawa	226	193	190	78	5,000		1	4
Copemish	Manistee	133	131	180	70	1,800		2	2
Coral	Montcalm	152	118	180	77	3,000	1,074 00	1	1
Corunna	Shiawassee	394	284	200	72	28,000	500 00	1	11
Covert	Van Buren	172	117	180	69	2,200		1	2
Crisp	Ottawa	109	53	200	85	600		1	
Croswell	Sanilac	326	282	200	72	6,000	4,700 00	2	5
Crystal	Montcalm	106	104	180	23	4,000		1	1
Crystal Falls	Iron	1,061	1,037	200	94	18,000	12,000 00	1	18
Custer	Mason	135	124	175	61	3,000	560 00	1	2
Dansville	Ingham	112	92	196	90	4,000		1	3
Davison	Genesee	221	206	200	71	10,000	2,000 00	1	4
Dearborn	Wayne	315	250	194	89	20,000	2,800 00	1	5
Decatur	Van Buren	348	329	186	80	15,000		1	7
*Deckerville	Sanilac	180							
Deerfield	Lenawee	201	175	180	92	8,000		1	4
Delaware Mine	Keweenaw	38	35	170	87				2
Delray	Wayne	1,489	702	200	95	50,000	30,000 00	1	18
Detour Tp	Chippewa	363	344	147	92	4,000	800 00	1	5
Detroit	Wayne	82,368	51,554	197	95	3,467,515		64	868
DeWitt	Clinton	111	87	180	71	4,500		1	2
Dexter	Washtenaw	273	226	180	88	18,000	8,000 00	1	7
Dimondale	Eaton	104	81	180	79	2,200		1	2
Dollar Bay	Houghton	456	396	200	75	17,000		2	8

* Items included in Downington report.

TABLE XVI.—CONTINUED.

Aggregate number of months taught by all teachers.		Total wages of teachers for the year.		Average monthly wages of teachers.		Amount paid for superintendence and instruction.	Total cost of school.	Number of non-resident pupils.	Tuition of non-resident pupils.
Men.	Women.	Men.	Women.	Men.	Women.				
9.5	76	$950 00	$2,963 00	$100 00	$38 99	$3,913 00	$5,410 87	32	$314 06
9.5	57	760 00	2,041 75	80 00	35 82	2,801 75	3,510 54	34	347 70
8	32	480 00	1,000 00	60 00	31 25	1,480 00	2,109 79	4	8 62
18	36	1,115 00	1,260 00	61 94	35 00	2,375 00	3,271 62	18	131 21
9	9	270 00	198 00	30 00	22 00	468 00	584 58	1	2 87
.....	18	.....	492 00	.....	27 33	492 00	611 03	.....	.....
9	108	900 00	3,924 00	100 00	36 33	4,824 00	8,159 83	18	140 23
19.5	214.5	2,200 00	9,641 00	112 82	43 08	11,841 00	17,731 07	47	664 42
10.1	9.6	394 00	281 50	39 01	29 32	675 50	954 65	2	5 00
10	20	700 00	850 00	70 00	42 50	1,550 00	2,160 67	1	.....
55	210	3,790 50	7,300 00	68 92	34 76	11,090 50	26,575 29	9	63 45
10	110	1,000 00	3,860 00	100 00	35 09	4,860 00	6,888 83	42	517 00
10	70	800 00	2,094 30	80 00	29 92	2,894 30	4,398 14	28	74 25
8	8	300 00	232 50	37 50	29 06	532 50	2,200 24	.....	.....
9	9.5	405 00	228 00	45 00	24 00	633 00	746 12	2	20 00
20	70	1,150 00	2,177 50	57 50	31 11	3,327 50	24,234 00	8	45 50
15	25	800 00	762 50	53 33	30 50	1,562 50	2,023 05	13	151 61
.....	17.2	.....	605 50	.....	35 10	605 50	748 00	2	4 20
9	17	599 98	435 00	66 66	25 59	1,034 98	1,410 17	17	86 25
18	18	810 00	495 00	45 00	27 50	1,305 00	2,105 99	12	122 70
9.5	50	600 00	1,601 00	63 16	32 02	2,201 00	2,845 10	24	224 67
21.5	39.5	1,217 50	1,312 50	56 63	33 22	2,530 00	3,593 69	31	369 85
40	230	3,375 00	8,708 00	84 37	37 86	12,083 00	17,527 73	46	521 65
20	60	850 00	1,850 00	42 50	30 83	2,700 00	3,427 32	.....	.....
9	36	495 00	1,080 00	55 00	30 00	1,575 00	4,525 53	13	104 10
18	27.3	853 00	870 12	47 39	31 87	1,723 12	1,980 07	17	114 75
10	30	500 00	840 00	50 00	28 00	1,340 00	1,948 25	24	182 25
9	9	360 00	202 50	40 00	22 50	562 50	700 26	4	23 75
9	9	450 00	225 00	50 00	25 00	675 00	826 90	5	11 25
19	28.5	1,130 00	997 50	59 47	35 00	2,127 50	2,752 01	20	179 16
9	9	342 00	238 50	38 00	26 50	580 50	645 72	2	.....
10	70	900 00	2,550 00	90 00	36 43	3,450 00	5,214 32	25	292 83
9.5	38	600 00	1,140 00	63 16	30 00	1,740 00	2,103 11	11	107 11
15.5	11.5	555 00	300 00	35 48	26 09	855 00	1,173 02	1	.....
9	9	405 00	270 00	45 00	30 00	675 00	1,077 73	5	13 00
10	110	1,000 00	3,625 00	100 00	32 95	4,625 00	7,070 87	43	292 66
9	18	360 00	472 50	40 00	26 25	832 50	1,053 89	11	38 55
10	.....	450 00	.....	45 00	.....	450 00	541 42	.....	.....
20	40	1,200 00	1,201 50	60 00	30 03	2,401 50	4,634 55	7	34 50
9	9	360 00	270 00	40 00	30 00	630 00	719 56	8	13 00
10	175	1,250 00	8,866 26	125 00	50 66	10,116 26	21,579 70	.....	.....
9	18	387 00	540 00	43 00	30 00	927 00	1,302 76	.....	.....
10	30	600 00	840 00	60 00	28 00	1,440 00	2,089 70	20	147 45
10	40	700 00	1,125 00	70 00	28 12	1,825 00	2,322 84	18	225 00
10	50	600 00	1,500 00	60 00	30 00	2,100 00	3,293 93	6	22 75
9.5	66.5	950 00	2,280 00	100 00	34 29	3,230 00	4,508 46	37	360 50
.....	.....	.....	.....	.....	.....	.....	262 31	.....	.....
9	36	600 00	864 00	66 67	24 00	1,464 00	1,865 14	27	136 65
.....	17	.....	665 00	.....	39 12	665 00	831 52	.....	.....
10	153	1,200 00	7,197 50	120 00	47 04	8,397 50	14,664 09	2	.....
9	40	450 00	1,059 00	50 00	26 47	1,509 00	2,306 29	.....	.....
640	8,680	74,398 60	580,442 12	116 25	67 56	654,840 72	1,304,382 39	74	1,215 43
9	18	450 00	522 00	50 00	29 00	972 00	1,237 70	8	20 00
9	63	810 00	1,873 00	90 00	29 73	2,683 00	3,879 40	19	252 55
9	18	450 00	585 00	50 00	32 50	1,035 00	1,386 87	12	92 84
20	70	1,550 00	3,450 00	77 50	49 29	5,000 00	12,007 77	.....	.....

TABLE XVI.—CONTINUED.

Districts.	Counties.	Number of children between 5 and 20 years.	Number of children that attended school during the year.	Number of days' school.	Percentage of attendance.	Estimated valuation of school property.	Total indebtedness.	Number of teachers employed.	
								Men.	Women.
Dorr	Allegan	120	97	180	95	$800		1	1
Douglas	Allegan	176	157	180	91	3,500		1	2
Dowagiac	Cass	1,216	1,001	200	96	24.000	$6,000 00	3	21
Downington	Sanilac	105	142	200	63	2,000		1	2
Drenthe	Ottawa	101	69	180	72	2,500		1	1
Dryden	Lapeer	120	131	200	99	1,500		1	2
Dundee	Monroe	318	338	193	85	20,000		1	8
Durand	Shiawassee	486	548	200	65	20,000	7,550 00	2	10
East Jordan	Charlevoix	407	308	180	76	15,000	5,400 00	1	7
Eastlake	Manistee	754	458	209	71	6,500		1	5
East Tawas	Iosco	680	460	180	90	5,000		1	9
Eaton Rapids	Eaton	514	511	183	93	17,000		2	13
Eau Claire	Berrien	141	101	180	63	5,000	3,000 00	1	2
Ecorse Tp. 1	Wayne	299	235	190	78	10,000	3,450 00	1	3
Ecorse Tp. 3	Wayne	301	224	196	61	8,000		1	3
Ecorse Tp. 4	Wayne	702	484	200	61	19,000	16,528 81	1	9
Edenville	Midland	161	108	180	70	1,500	800 00	1	1
Edmore	Montcalm	301	203	186	75	6,500		2	3
Edwardsburg	Cass	121	117	180	94	3,000		1	3
Elk Rapids	Antrim	600	436	180	72	23,500	13,500 00	1	12
Elkton	Huron	332	265	200	58	1,800		1	3
Elk Tp. 4 fl	Sanilac	115	89	175	45	1,000			2
Elk Tp. 5	Sanilac	104	91	200	35	400		1	
Ellsworth	Antrim	107	95	180	93	1,500	100 00	1	1
Elm Hall	Gratiot	109	95	180	75	2,500		1	1
Elmira	Otsego	135	136	180	60	1,000		2	1
Elsie	Clinton	230	200	180	80	3,500		1	4
Empire	Leelanau	222	173	180	90	5,000	3,500 00	1	2
Erie	Monroe	195	160	180	66	4,000		1	2
Escanaba	Delta	3,021	1,839	193	70	105,000	50,583 00	3	29
Essexville	Bay	614	178	200	93	7,000	115 95	1	3
Estey	Gladwin	126	108	140	23	925	442 00		3
Evart	Osceola	461	457	200	63	12,000	1,500 00	2	13
Farmington	Oakland	149	96	192	62	5,000		1	3
Farowe	Ottawa	124	76	180	62	1,600		1	1
Farwell	Clare	271	224	180	90	4,000		1	3
Fennville	Allegan	240	191	180	95	4,500		1	5
Fenton	Genesee	613	596	200	97	50,000		3	11
Ferrysburg	Ottawa	169	118	180	85	1,600		1	1
Fife Lake	G'd Traverse	188	156	180	66	4,000		1	3
Filer City	Manistee	285	160	200	64	4,000	1,100 00	1	3
Fillmore Tp. 1	Allegan	156	102	180	86	1,500		2	
Fillmore Tp. 2	Allegan	179	137	180	57	2,600			2
Fillmore Tp. 3	Allegan	78	64	180	61	800			2
Fillmore Tp. 4	Allegan	123	69	180	87	1,100			2
Fillmore Tp. 5 fl	Allegan	115	88	180	70	1,000		1	2
Flat Rock	Wayne	186	149	197	78	12,000	550 00	1	5
Flint	Genesee	3,287	2,512	200	98	175,000	8,000 00	5	59
Flushing	Genesee	214	162	194	93	10,000	1,000 00	1	5
Ford River	Delta	237	201	198	59	3,500		1	3
Forest Grove	Ottawa	107	88	180	74	1,500		1	1
Forestville	Sanilac	120	63	180	80	1,200		1	1
Fostoria	Tuscola	121	100	200	73	3,600		1	2
Fowlerville	Livingston	248	220	198	84	10,000	81 45	1	6
Frankenmuth	Saginaw	318	157	197	75	250		2	
Frankfort	Benzie	603	484	191	69	30,000	16,000 00	1	10
Franklin Tp. 1	Houghton	317	228	200	61	6,000	789 18	1	2
Franklin Tp. 2	Houghton	316	168	200	94	5,000		1	3

TABLE XVI.—CONTINUED.

Aggregate number of months taught by all teachers.		Total wages of teachers for the year.		Average monthly wages of teachers.		Amount paid for superintendence and instruction.	Total cost of school.	Number of non-resident pupils.	Tuition of non-resident pupils.
Men.	Women.	Men.	Women.	Men.	Women.				
9	9	$360 00	$225 00	$40 00	$25 00	$585 00	$671 51	.....	.....
9	18	540 00	576 00	60 00	32 00	1,116 00	1,849 68	1	.....
30	210	2,800 00	8,486 00	93 33	40 41	11,286 00	15,422 16	71	$723 98
9	20	450 00	600 00	50 00	30 00	1,050 00	1,490 67	.....	.....
9	9	350 00	225 00	38 89	25 00	575 00	1,026 27	.....	.....
10	20	550 00	530 00	55 00	26 50	1,080 00	1,286 00	27	180 63
10	80	850 00	2,450 00	85 00	30 62	3,300 00	4,671 20	18	173 50
20	100	1,200 00	3,130 00	60 00	31 30	4,330 00	8,852 83	18	91 00
9	63	700 00	2,160 00	77 78	34 29	2,860 00	4,045 14	11	61 00
10	50	700 00	2,130 00	70 00	42 60	2,830 00	5,282 96	1	3 00
9	81	800 00	2,945 00	88 89	36 36	3,745 00	5,221 27	1	.....
19.5	112.1	1,900 00	4,115 00	97 44	36 70	6,015 00	7,667 47	65	904 20
9	9	450 00	315 00	50 00	35 00	765 00	3,127 55	4	.....
9.5	28.5	475 00	902 50	50 00	31 67	1,377 50	2,692 50	1	.....
10	30	550 00	900 00	55 00	30 00	1,450 00	2,106 52	.....	.....
10	80	600 00	2,850 00	60 00	35 62	3,450 00	6,806 73	.....	.....
9	9	315 00	270 00	35 00	30 00	585 00	857 24	.....	.....
19	28.5	1,035 00	902 50	54 47	31 67	1,937 50	2,475 08	11	90 50
9	27	585 00	855 00	65 00	31 37	1,440 00	1,715 21	28	184 47
9	99	1,199 97	3,931 16	133 33	39 71	5,131 13	9,423 04	14	42 15
10	30	400 00	870 00	40 00	29 00	1,270 00	1,729 92	8	.....
.....	13	.....	357 00	.....	27 46	357 00	443 02	.....	.....
10	.....	400 00	.....	40 00	.....	400 00	452 87	.....	.....
9	9	360 00	270 00	40 00	30 00	630 00	803 31	2	.....
9	9	405 00	225 00	45 00	25 00	630 00	769 92	3	8 50
18	9	760 50	333 00	42 25	37 00	1,093 50	1,258 43	2	7 00
9	36	540 00	963 00	60 00	26 75	1,503 00	1,908 55	32	236 14
9	18	450 00	540 00	50 00	30 00	990 00	4,154 69	.....	.....
9	18	360 00	468 00	40 00	26 00	828 00	971 86	1	3 00
25	290	2,500 00	14,215 00	100 00	49 02	16,715 00	41,382 09	2	20 00
10	30	700 00	1,200 00	70 00	40 00	1,900 00	3,173 09	5	26 76
.....	14	.....	442 00	.....	31 57	442 00	800 00	.....	.....
20	101	1,386 25	3,388 68	69 31	33 55	4,774 93	6,081 18	12	58 04
10	20	650 00	460 00	65 00	23 00	1,110 00	1,924 24	16	179 00
9	9	288 00	180 00	32 00	20 00	468 00	547 84	.....	.....
9	27	540 00	864 00	60 00	32 00	1,404 00	2,102 42	15	42 50
9	37.5	750 00	1,007 40	83 34	26 86	1,757 40	2,310 14	53	298 49
30	110	2,150 00	4,000 00	71 67	36 36	6,150 00	11,277 32	34	302 00
9	9	405 00	252 00	45 00	28 00	657 00	955 90	.....	.....
9	23	500 00	660 00	55 56	28 70	1,160 00	1,560 47	8	.....
10	20	500 00	700 00	50 00	35 00	1,200 00	2,941 23	.....	.....
16.2	.....	431 00	.....	26 52	.....	431 00	608 24	3	.....
.....	18	.....	540 00	.....	30 00	540 00	700 60	10	.....
.....	18	.....	437 50	.....	24 30	437 50	553 57	.....	.....
.....	12	.....	346 00	.....	28 83	346 00	507 98	.....	.....
.5	15.5	17 50	437 75	35 00	28 25	455 25	622 15	4	.....
10	40	706 98	1,242 50	70 89	31 06	1,951 48	3,660 96	20	209 33
50	590	5,350 00	24,569 96	107 00	41 64	29,919 96	50,020 56	92	1,550 93
10	50	730 00	1,725 00	73 00	34 50	2,455 00	2,912 62	30	230 15
6.2	21 9	312 50	963 50	50 00	44 00	1,276 00	1,926 76	.....	.....
9	8.5	450 00	187 00	50 00	22 00	637 00	831 88	.....	.....
9	5	360 00	125 00	40 00	25 00	485 00	677 69	.....	.....
10	20	470 00	450 00	47 00	22 50	920 00	1,088 67	6	20 30
10	60	850 00	1,930 00	85 00	32 16	2,780 00	3,420 25	26	246 74
20	.....	950 00	.....	47 50	.....	950 00	1,054 29	16	.....
10	100	1,000 00	3,600 00	100 00	36 00	4,600 00	6,149 04	8	37 75
10	20	800 00	995 00	80 00	49 75	1,795 00	4,431 02	5	.....
10	30	900 00	1,200 00	90 00	40 00	2,100 00	2,906 97	.....	.....

TABLE XVI.—CONTINUED.

Districts.	Counties.	Number of children between 5 and 20 years.	Number of children that attended school during the year.	Number of days' school.	Percentage of attendance.	Estimated valuation of school property.	Total indebtedness.	Number of teachers employed.	
								Men.	Women.
Franklin Tp. 3	Houghton	305	185	200	56	$2,500			3
Franklin Tp. 4	Houghton	317	229	200	76	8,500	$6,000 00	1	4
Franklin Tp. 5	Houghton	209	150	200	52	3,000		1	3
Fremont	Newaygo	392	382	200	66	10,000		1	8
Freeland	Saginaw	123	99	194	70	1,500		1	1
Freeport	Barry	181	164	180	76	3,000	316 00	1	3
Freesoil	Mason	152	115	180	57	1,500			2
Frontier	Hillsdale	91	84	180	76	3,000		2	1
Fruitport	Muskegon	137	109	195	58	1,800		1	1
Fulton	Kalamazoo	100	89	180	82	1,500		1	2
Gagetown	Tuscola	160	103	200	60	3,000	1,700 00	1	1
Gaines	Genesee	114	113	200	82	5,000		1	2
Galesburg	Kalamazoo	173	148	180	90	10,000		2	4
Galien	Berrien	179	169	177	75	4,000		1	3
Gaylord	Otsego	457	325	190	66	10,000	5,000 00	1	6
Girard	Branch	72	67	180	67	3,000		1	1
Gladstone	Delta	922	796	200	98	21,000	15,500 00	1	16
Gladwin	Gladwin	242	252	200	90	4,000		2	3
Gobleville	Van Buren	211	201	190	81	4,200		1	3
Goodrich	Genesee	86	55	200	65	2,000		1	1
Graafschap	Allegan	148	97	160	83	1,400			2
Grand Blanc	Genesee	95	85	200	69	3,000		1	2
Grand Haven	Ottawa	1,622	1,305	200	97	25,000	30,000 00	2	28
Grand Junction	Van Buren	116	83	180	77	3,000		1	1
Grand Ledge 9 fl	Eaton	277	271	188	77	10,000		1	6
Grand Ledge 11 fl	Eaton	252	223	200	71	7,500		1	4
Grand Marais	Alger	442	384	196	86	5,000	2,500 00	1	5
Grand Rapids	Kent	26,630	15,839	190	93	1,275,000	247,000 00	21	363
Grand Rapids Tp. 3 fl	Kent	113	69	180	26	3,000	865 46	1	1
Grandville	Kent	217	198	200	94	10,000		1	3
Grant Tp. 6 fl	Oceana	73	63	180	65	1,500			2
Grass Lake	Jackson	196	176	200	74	8,000	1,300 00	1	5
Grattan	Kent	94	90	180	96	1,400		1	1
Grayling	Crawford	425	373	200	69	12,000		2	7
Greenville	Montcalm	873	741	200	89	25,000		2	18
Grindstone City	Huron	238	232	200	82	1,200		1	2
Grosse Pointe Tp. 1	Wayne	166	116	200	51	2,000		1	
Half Way	Macomb	176	75	197	52	3,000		1	
Hadley	Lapeer	108	81	190	80	2,900		1	2
Hamilton	Allegan	99	84	177	68	1,500		1	1
Hamtramck Tp. 8	Wayne	575	289	200	72	20,000	15,000 00	1	6
Hancock	Houghton	1,963	1,137	200	71	98,000	45,000 00	3	23
Hampton Tp. 1	Bay	214	111	176	57	600	2,500 00	1	1
Hanover	Jackson	133	121	200	95	6,500		1	3
Harbor Beach	Huron	384	288	177	85	25,000	16,000 00	1	7
Harbor Springs	Emmet	532	357	180	78	10,000		1	7
Harrietta	Wexford	125	125	180	56	2,000		1	3
Harrison	Clare	168	157	180	88	3,900	425 00	1	3
Harrisville	Alcona	215	172	180	72	3,500		1	3
Hart	Oceana	327	380	180	91	20,000	800 00	1	8
Hartford	Van Buren	359	331	180	71	3,000		2	6
Hastings	Barry	701	634	193	98	70,000		3	16
Hersey	Osceola	133	107	190	75	3,500		1	2
Hesperia	Newaygo	217	192	180	64	8,000	553 00	1	4
Highland Park	Wayne	158	132	200	73	12,000	6,000 00	1	3
Highland Station	Oakland	96	72	200	76	1,500		1	1
Hillman Tp	Montmorency	280	214	160	80	3,500		1	4
Hillsdale	Hillsdale	963	866	190	96	50,000	10,400 00	2	20

TABLE XVI.—CONTINUED.

Aggregate number of months taught by all teachers.		Total wages of teachers for the year.		Average monthly wages of teachers.		Amount paid for superintendence and instruction.	Total cost of school.	Number of non-resident pupils.	Tuition of non-resident pupils.
Men.	Women.	Men.	Women.	Men.	Women.				
.....	26	.....	$1,340 00	.....	$51 54	$1,340 00	$2,843 40	.....	.....
10	40	$700 00	1,895 00	$70 00	47 37	2,595 00	3,774 23	.....	.....
10	30	800 00	1,300 00	80 00	43 33	2,100 00	2,615 28	.....	.....
10	70	750 00	2,264 50	75 00	32 35	3,014 50	3,995 35	22	$139 58
10	10	400 00	270 00	40 00	27 00	670 00	875 19	5	15 50
9	27	405 00	717 50	45 00	26 58	1,122 50	1,424 07	5	62 10
.....	18	.....	585 00	.....	32 50	585 00	834 74	.....	.....
17.8	9	672 00	225 00	37 75	25 00	897 00	1,241 11	21	68 88
9.7	9.7	487 50	292 50	50 00	30 00	780 00	876 16	.....	.....
8.5	18	387 22	454 50	45 55	25 25	841 72	923 58	6	41 82
10	10	550 00	240 00	55 00	24 00	790 00	1,230 96	11	62 40
10	20	500 00	500 00	50 00	25 00	1,000 00	1,592 58	17	118 25
18	36	1,115 00	1,044 00	61 94	29 00	2,159 00	2,925 46	44	331 75
9	27	517 50	855 00	57 50	31 67	1,372 50	1,865 27	12	123 19
9.5	57	750 00	2,110 00	78 95	37 02	2,860 00	4,645 22	9	30 05
9	9	360 00	225 00	40 00	25 00	585 00	780 45	9	50 25
10	150	1,100 00	6,400 00	110 00	42 67	7,500 00	14,451 48	4	.....
20	30	850 00	1,010 00	42 50	33 67	1,860 00	2,323 73	29	173 25
9.5	28.5	600 00	855 00	63 16	30 00	1,455 00	1,858 70	11	72 00
10	10	400 00	300 00	40 00	30 00	700 00	927 37	1	.....
.....	16	.....	448 00	.....	28 00	448 00	548 50	.....	.....
10	10	450 00	320 00	45 00	32 00	770 00	1,135 87	.....	.....
20	280	1,800 00	9,956 70	90 00	35 56	11,756 70	25,226 74	26	174 17
9	9	360 00	270 00	40 00	30 00	630 00	881 84	9	35 17
10	60	900 00	2,225 00	90 00	37 08	3,125 00	3,933 70	31	314 21
10	40	500 00	1,300 00	50 00	32 50	1,800 00	2,470 59	2	1 50
10	50	850 00	2,250 00	85 00	45 00	3,100 00	3,897 48	.....	.....
210	3,630	22,450 00	208,009 99	106 90	57 30	230,459 99	383,128 55	98	1,056 05
9	9	360 00	315 00	40 00	35 00	675 00	865 46	.....	.....
10	30	700 00	928 35	70 00	30 94	1,628 35	2,112 88	21	131 57
.....	18	.....	495 00	.....	27 50	495 00	589 77	3	.....
10	50	700 00	1,450 00	70 00	29 00	2,150 00	3,436 31	33	279 79
9	9	405 00	270 00	45 00	30 00	675 00	817 89	10	28 00
10	70	800 00	2,550 00	80 00	36 43	3,350 00	5,131 12	.....	.....
10	180	1,219 00	7,600 00	121 90	42 22	8,819 00	11,444 35	47	761 50
10	20	600 00	650 00	60 00	32 50	1,250 00	1,523 58	.....	.....
10	.....	500 00	.....	50 00	.....	500 00	672 93	.....	.....
10	.....	400 00	.....	40 00	.....	400 00	1,438 78	2	3 00
9.5	19	570 00	508 25	60 00	26 75	1,078 25	1,477 31	36	234 61
9	9	360 00	225 00	40 00	25 00	585 00	675 62	1	75
10	55	800 00	2,125 00	80 00	38 64	2,925 00	5,794 26	7	36 00
30	230	3,300 00	10,583 75	110 00	46 01	13,883 75	31,848 01	43	900 50
9	4.5	405 00	90 00	45 00	20 00	495 00	719 39	.....	.....
10	30	650 00	950 00	65 00	31 67	1,600 00	2,390 82	38	392 25
9	63	850 00	2,350 00	94 44	37 46	3,200 00	5,356 60	14	69 64
9	63	850 00	2,340 00	94 44	37 14	3,190 00	4,648 08	9	57 00
9	17.5	405 00	570 50	45 00	32 60	975 50	1,709 62	.....	.....
9	27	500 00	720 00	55 55	26 66	1,220 00	1,540 68	7	25 95
9	27	450 00	837 00	50 00	31 00	1,287 00	1,610 68	3	.....
9	67.5	850 00	2,205 00	94 44	32 67	3,055 00	4,121 96	22	95 60
9	53 2	806 02	1,956 00	89 56	36 73	2,762 02	3,333 49	27	249 67
30	160	2,250 00	5,670 00	75 00	35 44	7,920 00	11,264 46	34	278 65
10	20	600 00	600 00	60 00	30 00	1,200 00	1,462 10	9	62 70
9	36	450 00	1,125 00	50 00	31 25	1,575 00	2,145 63	12	41 25
10	30	1,000 00	1,300 00	100 00	43 33	2,300 00	3,745 69	7	48 00
10	10	400 00	310 00	40 00	31 00	710 00	783 00	.....	.....
8	32	400 00	960 00	50 00	30 00	1,360 00	2,556 61	.....	.....
19	185.2	1,950 00	7,247 50	102 63	39 12	9,197 50	18,521 94	62	771 63

TABLE XVI.—CONTINUED.

Districts.	Counties.	Number of children between 5 and 20 years.	Number of children that attended school during the year.	Number of days' school.	Percentage of attendance.	Estimated valuation of school property.	Total indebtedness.	Number of teachers employed.	
								Men.	Women.
Holland	Ottawa	2,381	1,855	192	94	$85,000	$20,000 00	3	36
Holland Tp. 3	Ottawa	143	111	200	67	1,500		1	1
Holland Tp. 4	Ottawa	119	78	200	75	1,500			1
Holland Tp. 6 fl	Ottawa	152	108	200	53	1,000		2	
Holland Tp. 9	Ottawa	121	92	180	60	2,000			2
Holland Tp. 11 fl	Ottawa	91	72	180	66	1,000		1	
Holly	Oakland	384	324	200	88	15,000		1	7
Hollywood	Berrien	111	72	160	80	2,200		1	1
Holt	Ingham	134	106	180	64	2,000		1	2
Holton	Muskegon	100	76	180	51	2,000		2	1
Homer	Calhoun	278	258	195	84	15,000		1	9
Honor	Benzie	164	152	179	61	3,000	1,000 00	1	2
Hope	Midland	118	94	180	54	1,800	200 00		2
Hopkins Station	Allegan	126	97	180	96	1,500		1	2
Horton	Jackson	82	79	181	89	4,000		2	1
Houghton	Houghton	1,573	832	200	74	110,000	50,000 00	2	23
Howard City	Montcalm	461	397	190	91	4,800		1	8
Howell	Livingston	623	490	200	89	35,000		2	16
Hubbardston	Ionia	145	103	179	77	4,500		1	2
Hudson	Lenawee	577	521	190	90	23,000		1	9
Hudsonville	Ottawa	115	100	180	72	2,000		1	1
Ida	Monroe	113	85	175	41	1,500		1	1
Imlay City	Lapeer	514	450	200	43	15,000		1	7
Ionia	Ionia	1,415	1,247	200	96	65,000		2	27
Iron Mountain	Dickinson	3,045	2,374	180	77	140,000	57,500 00	5	46
Iron River	Iron	505	404	170	90	5,900	2,000 00	1	9
Ironwood	Gogebic	3,119	2,378	200	92	150,000	38,000 00	3	53
Ishpeming	Marquette	4,456	2,853	200	90	200,000	26,500 00	5	59
Ithaca	Gratiot	625	498	200	92	25,000	7,750 00	1	12
Jackson	Jackson	6,033	4,054	200	94	250,000	30,000 00	10	80
Jamestown	Ottawa	160	121	180	63	2,000	26 50	1	1
Jacobsville	Houghton	174	127	180	73	3,500		1	2
Jasper	Lenawee	89	72	180	72	2,000		1	2
Jennings	Missaukee	315	320	180	60	5,000		1	4
Jonesville	Hillsdale	332	302	200	73	30,000		1	7
Kalamazoo	Kalamazoo	6,108	4,456	189	94	480,000		6	101
Kalamazoo Tp. 6 fl	Kalamazoo	95	65	174	71	2,200			2
Kalkaska	Kalkaska	401	349	170	64	9,000	1,000 00	2	6
Kawkawlin	Bay	149	149	128	50	2,500	2,000 00		2
Kendall	Van Buren	59	45	180	51	1,000		1	
Kent City	Kent	155	141	180	66	4,000		1	2
Kenton	Houghton	101	90	180	60	1,200	336 98	1	1
Kilmanagh	Huron	186	126	180	62	2,000			2
Kingsley	G'd Traverse	202	171	180	60	5,500	600 00	1	2
Kingston	Tuscola	159	124	200	68	1,400		1	1
Kochville Tp. 6	Saginaw	108	51	175	80	1,500		1	1
Lacota	Van Buren	109	91	180	60	2,000		1	1
Laingsburg	Shiawassee	169	169	198	84	5,000		2	2
Lake Ann	Benzie	111	97	176	52	3,500		1	1
Lake City	Missaukee	274	244	180	57	4,500		1	5
Lake Linden	Houghton	2,069	1,673	194	98	33,000		1	29
Lake Odessa	Ionia	390	332	180	71	10,000	2,500 00	1	8
Lakeview	Montcalm	382	399	190	96	5,000		3	6
Lamont	Ottawa	101	76	180	80	1,500		1	1
L'Anse	Baraga	474	338	184	68	7,500		2	7
Lansing	Ingham	4,388	3,109	189	95	167,000	20,000 00	4	78
Lapeer	Lapeer	693	571	205	78	45,500	3,000 00	2	18
Laporte	Midland	127	106	180	71	1,000			2

TABLE XVI.—CONTINUED.

Aggregate number of months taught by all teachers.		Total wages of teachers for the year.		Average monthly wages of teachers.		Amount paid for superintendence and instruction.	Total cost of school.	Number of non-resident pupils.	Tuition of non-resident pupils.
Men.	Women.	Men.	Women.	Men.	Women.				
30	360	$2,555 00	$12,229 03	$85 00	$33 97	$14,779 03	$20,763 67	43	$120 00
10	10	380 00	250 00	38 00	25 00	630 00	1,050 32	.....	.....
.....	10	.....	350 00	.....	35 00	350 00	470 24	.....	.....
20	.....	562 00	.....	28 10	.....	562 00	711 49	.....	.....
.....	20	.....	615 00	.....	30 75	615 00	798 24	.....	.....
9	.....	300 00	.....	33 33	.....	300 00	386 52	4	2 07
10	70	1,000 00	2,510 00	100 00	35 86	3,510 00	4,359 76	35	356 48
8	8	360 00	260 00	45 00	32 50	620 00	808 67	4	23 74
9	18	360 00	450 00	40 00	25 00	810 00	909 91	8	21 25
9	9	300 00	225 00	33 33	25 00	525 00	653 18	3	2 00
10	85	750 00	2,450 00	75 00	28 82	3,200 00	4,006 40	22	200 33
9	18	450 00	585 00	50 00	32 50	1,035 00	1,359 48	12	28 33
.....	18	.....	567 00	.....	31 50	567 00	666 75	.....	.....
9	18	450 00	540 00	50 00	30 00	990 00	1,209 88	13	63 73
19	9.5	832 50	304 00	43 82	32 00	1,136 50	1,503 01	21	68 00
20	220	2,150 00	10,692 50	107 50	48 60	12,842 50	31,061 59	33	1,027 50
9.5	76	712 50	2,425 50	75 00	31 91	3,138 00	4,120 51	14	81 38
20	150	1,700 00	4,804 00	85 00	32 03	6,504 00	9,817 30	71	943 44
9	18	525 00	450 00	58 33	25 00	975 00	1,340 10	17	109 75
9.5	85.5	1,150 00	3,345 00	121 05	39 12	4,495 00	6,339 07	34	400 20
9	9	360 00	270 00	40 00	30 00	630 00	761 00	5	13 50
9	9	360 00	247 50	40 00	29 50	607 50	698 50	3	4 00
10	70	900 00	2,200 00	90 00	31 43	3,100 00	4,095 52	18	212 67
20	270	2,000 00	11,154 44	100 00	41 31	13,154 44	18,617 40	127	860 46
45	414	3,100 01	22,715 89	68 89	54 87	25,815 90	73,385 48	2	.....
10	84	800 00	3,640 00	80 00	43 33	4,440 00	7,610 74	18	39 98
30	530	3,900 00	23,923 75	130 00	45 14	27,823 75	46,385 81	25	375 00
50	500	5,700 00	29,585 00	114 00	50 14	35,285 00	102,602 16	1	5 00
10	110	1,100 00	3,756 25	110 00	34 14	4,856 25	6,734 43	45	367 88
100	800	9,850 00	38,789 92	98 50	48 49	48,639 92	67,427 56	41	532 01
9	9	360 00	225 00	40 00	25 00	585 00	722 53	1	4 88
9	18	585 00	720 00	65 00	40 00	1,305 00	1,715 81	.....	.....
5.2	12.8	236 25	383 25	45 00	30 06	619 50	702 65	2	4 00
9	29.8	495 00	937 50	55 00	31 51	1,432 50	4,008 82	.....	.....
10	60	850 00	2,335 00	85 00	38 91	3,185 00	4,338 31	24	210 25
50	1,010	6,170 00	44,407 98	123 40	43 96	50,577 98	95,202 35	45	1,139 11
.....	18	.....	495 00	.....	27 50	495 00	763 25	2	.....
17.5	49.5	1,200 00	1,925 50	68 57	38 90	3,125 00	5,064 61	17	56 00
.....	13	.....	340 00	.....	26 15	340 00	2,881 84	.....	.....
9	.....	360 00	.....	40 00	.....	360 00	415 69	.....	.....
9	18	450 00	525 00	50 00	29 17	975 00	1,195 45	2	9 00
9	9	495 00	495 00	55 00	55 00	990 00	1,044 32	.....	.....
.....	18	.....	557 00	.....	30 94	557 00	645 67	.....	.....
9	18	405 00	585 00	45 00	32 50	990 00	1,350 48	.....	.....
10	10	425 00	250 00	42 50	25 00	675 00	838 26	5	30 00
8	9	346 00	207 00	43 25	23 00	553 00	648 79	1	2 00
8	8	315 00	234 00	39 37	29 25	549 00	690 64	.....	.....
20	20	900 00	600 00	45 00	30 00	1,500 00	2,253 83	24	220 91
9	9	540 00	315 00	60 00	35 00	855 00	1,320 64	.....	.....
9	45	450 00	1,575 00	50 00	35 00	2,025 00	3,069 19	16	.....
10	290	1,800 00	15,604 25	180 00	53 81	17,404 25	24,744 36	3	48 00
9.5	61	665 00	1,572 50	70 00	25 78	2,237 50	3,060 19	40	290 51
28.5	39.5	1,665 00	1,107 50	58 42	28 04	2,772 50	4,488 52	29	210 75
9	9	500 00	292 50	55 56	32 50	792 50	1,458 48	7	.....
20	66	1,800 00	3,070 00	90 00	46 51	4,870 00	6,987 34	.....	.....
40	780	3,700 00	32,911 27	92 50	42 19	36,611 27	50,491 85	40	416 00
20.2	184.5	1,845 00	6,060 00	91 11	32 84	7,905 00	16,178 43	38	605 81
.....	18	.....	585 00	.....	32 50	585 00	793 00	.....	.....

TABLE XVI.—CONTINUED.

Districts.	Counties.	Number of children between 5 and 20 years.	Number of children that attended school during the year.	Number of days' school.	Percentage of attendance.	Estimated valuation of school property.	Total indebtedness.	Number of teachers employed.	
								Men.	Women.
Lawrence	Van Buren	211	186	180	97	$8,000	$100 00	1	4
Lawton	Van Buren	248	191	190	96	9,000	446 77	2	6
Leitch	Sanilac	102	87	200	44	1,000		1	
Leland	Leelanau	85	68	160	85	2,000		1	1
Lenox	Macomb	152	97	177	69	1,300		1	1
Leonard	Oakland	112	71	200	90	2,500	1,060 00	1	2
Le Roy	Osceola	222	204	175	67	5,000		1	3
Leslie	Ingham	305	223	195	89	10,000	79 06	1	5
Lexington	Sanilac	198	161	200	86	10,000		1	4
Linden	Genesee	154	140	195	90	5,000		1	3
Lisbon	Ottawa	123	73	180	58	1,000		1	2
Litchfield	Hillsdale	161	143	180	95	10,000		1	4
Lowell	Kent	656	493	200	91	18,000	2,000 00	3	10
Lucas	Missaukee	148	103	180	49	1,100		1	1
Ludington	Mason	2,621	1,842	183	95	100,000	14,000 00	3	40
Luther	Lake	297	254	190	64	4,500		1	4
Lyons	Ionia	176	162	180	74	4,000		1	4
McBain	Missaukee	279	203	180	61	4,000		1	3
McBrides	Montcalm	161	136	186	71	2,000		1	2
McMillan Tp	Luce	534	484	180	90	8,000		2	11
McMillan Tp	Ontonagon	206	183	190	85	9,350	2,165 18	1	6
Mackinac Island	Mackinac	238	168	160	90	5,500		1	3
Mackinaw City	Cheboygan	201	146	180	65	5,500		1	4
Macon Tp. 1	Lenawee	60	50	180	89	1,500		1	1
Mancelona	Antrim	561	531	180	64	1,400		2	8
Manchester	Washtenaw	376	308	195	95	20,000		1	8
Manistee	Manistee	4,681	2,849	200	88	132,000	27,000 00	7	70
Manistique	Schoolcraft	1,254	1,066	191	82	40,000	12,000 00	3	20
Manton	Wexford	319	282	180	68	10,000		1	9
Maple Rapids	Clinton	185	170	200	67	3,000		2	2
Marcellus	Cass	260	230	175	87	18,000	500 00	2	5
Marine City	St. Clair	1,266	645	200	92	50,000	29,000 00	2	12
Marion	Osceola	245	225	180	64	4,000	1,500 00	1	3
Marlette	Sanilac	339	310	200	90	15,000	10,000 00	2	6
Marquette	Marquette	3,120	2,200	190	90	150,000	30,000 00	4	36
Marshall	Calhoun	1,036	757	190	69	125,000	25,000 00	3	22
Martin	Allegan	120	87	180	86	4,000		1	2
Marysville	St. Clair	122	84	180	52	1,875		1	1
Mason	Ingham	415	340	198	94	18,000		1	12
Mattawan	Van Buren	96	65	180	40			1	1
Maybee	Monroe	190	90	180	87	1,800		1	1
Mayville	Tuscola	274	261	200	70	10,000	6,100 00	2	3
Mecosta	Mecosta	156	142	180	57	2,500		2	2
Memphis	Macomb	201	155	196	85	5,000		1	3
Mendon	St. Joseph	206	162	180	88	10,000	38 79	2	5
Menominee	Menominee	4,202	3,195	189	94	156,000	50,000 00	6	55
Mesick	Wexford	129	115	180	50	15,000		1	2
Metamora	Lapeer	97	102	176	69	3,000		3	1
Michigamme	Marquette	356	316	185	91	9,000		1	5
Middleton	Gratiot	143	125	180	60	2,500	600 00	1	1
Middleville	Barry	225	213	200	89	10,000		1	7
Midland	Midland	739	653	194	89	38,500		1	12
Milan	Washtenaw	308	276	180	83	20,000	14,500 00	1	8
Milford	Oakland	271	239	200	98	15,000	1,000 00	2	5
Millburg	Berrien	112	112	160	51	2,500		1	1
Mill Creek	Kent	146	111	200	70	1,500		1	1
Millington	Tuscola	226	135	194	37	6,350		1	3
Minden City	Sanilac	196	130	180	84	2,000		1	1

TABLE XVI.—CONTINUED.

Aggregate number of months taught by all teachers.		Total wages of teachers for the year.		Average monthly wages of teachers.		Amount paid for superintendence and instruction.	Total cost of school.	Number of non-resident pupils.	Tuition of non-resident pupils.
Men.	Women.	Men.	Women.	Men.	Women.				
9	36	$700 00	$1,224 00	$77 78	$34 00	$1.924 00	$3,088 53	40	$354 17
19	37.7	804 00	1,168 00	42 32	30 94	1,972 00	2,752 91	30	68 85
10	.....	300 00	.....	30 00	.....	300 00	380 53	3	.....
8	6	375 00	150 00	46 87	25 00	525 00	680 71	2	.....
9	9	405 00	180 00	45 00	20 00	585 00	676 46	1	.....
10	20	350 00	410 00	35 00	20 50	760 00	1,203 11	9	17 50
9	27	500 00	810 00	55 56	30 00	1,310 00	1,956 39	1	2 00
10	50	850 00	1,850 00	85 00	37 00	2,700 00	3,780 89	28	241 00
10	40	600 00	1,200 00	60 00	30 00	1,800 00	2,550 25	12	71 79
10	30	550 00	800 00	55 00	26 67	1,350 00	1,867 89	28	187 25
9	18	405 00	450 00	45 00	25 00	855 00	1,030 70	3	17 17
9	36	550 00	1,224 00	61 11	34 00	1,774 00	2,467 59	25	244 00
28.4	100	1,630 00	3,380 00	57 39	33 80	5,010 00	7,506 70	41	415 00
9	9	360 00	270 00	40 00	30 00	630 00	811 94	.....	.....
28.5	380	2,522 50	15,835 62	88 51	41 66	18,358 12	25,883 14	28	302 90
9.5	38	600 00	1,258 75	63 16	33 12	1,858 75	2,569 56	6	2 00
9	27	630 00	885 00	70 00	31 67	1,515 00	2,094 72	17	98 71
9	27	495 00	810 00	55 00	30 00	1,305 00	1,951 15	.....	.....
9.5	19	522 50	617 50	55 00	32 50	1,140 00	1,363 63	15	45 88
20	99	1,850 00	4,200 00	92 50	42 42	6,050 00	8,145 80	.....	.....
10	53	700 00	2,630 00	70 00	49 62	3,330 00	6,737 23	2	.....
8	24	640 00	1,000 00	80 00	41 67	1,640 00	2,844 82	.....	.....
9	27	595 00	900 00	66 11	33 33	1,495 00	1,979 54	.....	.....
9	9	450 00	198 00	50 00	22 00	648 00	765 13	8	18 00
18	72	1,080 00	2,610 00	60 00	36 25	3,690 00	5,103 42	5	23 50
10	80	950 00	2,500 00	95 00	31 25	3,450 00	4,880 01	29	370 26
69.6	696.5	6,383 00	28,056 18	91 71	40 28	34,439 18	49,674 24	54	553 73
30	200	2,550 00	9,067 63	85 00	45 34	11,617 63	19,545 76	8	116 35
9	63	630 00	2,025 00	70 00	32 14	2,655 00	4,192 78	25	197 77
20	20	1,000 00	600 00	50 00	30 00	1,600 00	2,009 86	9	90 60
18	45	1,015 00	1,665 00	56 39	37 00	2,680 00	4,732 58	43	371 39
20	120	1,500 00	4,170 00	75 00	34 75	5,670 00	38,945 46	22	65 25
9	27	550 00	810 00	61 11	30 00	1,360 00	1,821 58	10	50 35
20	59	1,250 00	1,770 00	62 50	30 00	3,020 00	5,075 62	44	339 13
40	360	4,350 00	18,258 00	108 75	50 72	22,608 00	80,078 25	.....	.....
30	220	3,200 00	7,683 78	106 67	34 79	10,853 78	43,563 65	40	674 00
9	18	540 00	570 00	60 00	31 67	1,110 00	1,426 20	27	230 47
9	9	450 00	225 00	50 00	25 00	675 00	806 73	.....	.....
10	100	1,050 00	3,675 00	105 00	36 75	4,725 00	6,499 01	73	595 35
9	9	325 00	252 00	36 11	28 00	577 00	757 67	1	4 00
9	7	370 00	175 00	41 11	25 00	545 00	652 02	5	.....
20	30	900 00	900 00	45 00	30 00	1,800 00	2,681 99	16	110 75
9	18	483 28	450 00	53 69	25 00	933 28	1,190 04	5	10 60
10	30	600 00	912 00	60 00	30 40	1,512 00	1,950 86	16	148 39
18	45	1,260 00	1,602 00	70 00	35 60	2,862 00	3,882 55	37	244 68
57	512.5	5,477 50	24,529 60	96 09	47 86	30,007 10	45,388 95	10	228 14
9	17.5	270 00	567 50	30 00	32 43	837 50	1,459 90	7	2 60
18	9	738 00	252 00	41 00	28 00	990 00	1,232 70	1	19 98
10	50	850 00	2,050 00	85 00	41 00	2,900 00	4,568 63	.....	.....
9	9	405 00	270 00	45 00	30 00	675 00	814 21	13	33 45
10	60	750 00	1,825 00	75 00	30 42	2,575 00	3,211 98	21	234 11
10	120	900 00	4,175 00	90 00	34 79	5,075 00	7,761 98	10	60 00
9	60.2	750 00	1,852 50	83 33	30 75	2,602 50	14,953 50	28	276 06
20	50	1,275 00	1,500 00	63 75	30 00	2,775 00	4,217 82	25	255 01
8	8	400 00	240 00	50 00	30 00	640 00	751 00	8	41 25
10	10	400 00	280 00	40 00	28 00	680 00	796 09	.....	.....
10	30	550 00	875 00	55 00	29 17	1.425 00	1,927 97	21	151 70
9	9	455 00	290 00	50 56	32 22	745 00	876 55	3	16 00

TABLE XVI.—CONTINUED.

Districts.	Counties.	Number of children between 5 and 20 years.	Number of children that attended school during the year.	Number of days' school.	Percentage of attendance.	Estimated valuation of school property.	Total indebtedness.	Number of teachers employed.	
								Men.	Women
Monroe	Monroe	1,600	827	191	70	$38,000	$10,500 00	4	15
Millersburg	Presque Isle	204	173	200	61	7,500	4,563 00	1	3
Montague	Muskegon	323	215	180	94	2,000		4	8
Montgomery	Hillsdale	88	78	180	61	1,500		2	1
Morenci	Lenawee	277	230	180	91	9,000		1	6
Morley	Mecosta	143	108	190	95	4,000		1	2
Morrice	Shiawassee	143	118	195	97	5,000		3	3
Mt. Clemens	Macomb	2,153	1,089	200	97	65,000	30,000 00	3	25
Mt. Morris	Genesee	161	141	180	72	5,500		1	2
Mt. Pleasant	Isabella	973	806	200	93	29,300	12,000 00	3	21
Muir	Ionia	150	142	180	84	5,700		2	3
Mulliken	Eaton	104	88	150	77	4,000	2,416 00	2	2
Munising	Alger	681	571	137	84	11,600	3,630 00	4	14
Muskegon	Muskegon	7,317	4,705	200	94	450,000	42,500 00	5	103
Muskegon Heights	Muskegon	314	256	200	75	14,640	8,000 00	1	4
Nadeau	Menominee	186	145	190	58	3,200		1	2
Napoleon	Jackson	105	85	190	98	5,000		1	2
Nashville	Barry	318	301	200	84	12,000		2	7
Negaunee	Marquette	2,370	1,421	200	65	60,000	47,077 43	2	32
Newaygo	Newaygo	427	387	200	65	6,000		1	6
New Baltimore	Macomb	271	108	200	81	20,000		1	3
New Boston	Wayne	124	98	180	56	2,500		1	1
New Buffalo	Berrien	203	180	180	81	2,000		1	3
New Haven	Macomb	165	138	179	74	1,200		1	2
New Holland	Ottawa	156	110	200	69	1,000		1	1
New Hudson	Oakland	60	46	180	84	2,000		1	1
New Troy	Berrien	164	132	180	55	4,000		1	2
Niles	Berrien	1,171	1,007	187	96	50,000	3,500 00	2	22
Noordeloos	Ottawa	92	65	200	70	1,100	800 00	1	
North Adams	Hillsdale	125	90	172	92	10,000		1	3
North Branch	Lapeer	230	189	190	91	10,000		2	5
North Muskegon	Muskegon	170	129	160	84	8,000	1,606 00		3
Northport	Leelanau	272	137	180	74	3,500		2	2
North Star	Gratiot	130	90	175	66	1,800		1	1
Northville	Wayne	431	392	200	95	20,000		1	9
Norway	Dickinson	1,582	1,014	178	96	26,500	11,796 00	1	14
Novi	Oakland	84	68	177	76	2,500	366 00	1	1
Nunica	Ottawa	116	100	180	72	2,500		1	1
Oak Grove	Livingston	75	56	180	89	1,500		1	1
Oak Hill	Manistee	442	255	200	23	3,500		1	3
Oakley	Saginaw	92	82	200	73	1,200		1	1
Ogden Center	Lenawee	88	70	200	67	3,500		1	1
Okemos	Ingham	133	118	180	66	3,000		1	2
Old Mission	G'd Traverse	81	79	159	64	3,000	625 00	1	1
Olivet	Eaton	242	211	190	88	9,000		2	5
Omer	Arenac	239	179	176	81	5,000	4,000 00	1	2
Onaway	Presque Isle	481	377	200	29	10,000	8,580 81	1	5
Onekama	Manistee	179	142	180	57	1,600		1	2
Onondaga	Ingham	96	81	180	76	500		1	1
Ontonagon Tp	Ontonagon	469	421	126	81	24,000	16,566 66	1	14
Opechee	Houghton	2,180	1,320	200	85	1,400		4	24
Orion	Oakland	251	170	192	70	10,000		1	3
Ortonville	Oakland	102	95	185	87	3,000		1	2
Oscoda	Iosco	468	310	180	62	1,500			7
Osseo	Hillsdale	101	79	179	58	2,000		1	1
Otisville	Genesee	141	135	194	60	2,000		2	1
Otsego	Allegan	603	497	180	80	20,000	7,000 00	1	15
Otter Lake	Lapeer	89	74	180	93	1,000		1	1

TABLE XVI.—Continued.

Aggregate number of months taught by all teachers.		Total wages of teachers for the year.		Average monthly wages of teachers.		Amount paid for superintendence and instruction.	Total cost of school.	Number of non-resident pupils.	Tuition of non-resident pupils.
Men.	Women.	Men.	Women.	Men.	Women.				
40	150	$3,200 00	$5,275 00	$80 00	$35 17	$8,475 00	$18,571 76	73	$798 26
10	30	600 00	1,050 00	60 00	35 00	1,520 00	5,333 46	.....	.....
26.7	46.4	1,083 75	1,583 00	40 51	34 12	2,666 75	4,201 42	21	73 75
7.8	9	280 55	225 00	37 12	25 00	514 55	599 35	7	31 50
9	54	800 00	1,710 00	88 89	31 67	2,510 00	3,097 56	18	82 00
9.5	18	600 00	504 00	63 16	28 00	1,104 00	1,412 51	15	61 80
20	20	800 00	600 00	40 00	30 00	1,400 00	1,878 04	22	179 37
30	250	2,950 00	10,128 13	98 33	40 51	13,078 13	22,880 05	38	269 65
9	18	540 00	477 00	60 00	26 50	1,017 00	1,299 07	10	32 00
30	210	2,100 00	6,577 25	70 00	31 34	8,677 25	15,186 43	27	157 00
18	18	788 00	540 00	43 78	30 00	1,328 00	1,749 45	9	55 00
8.7	14.8	350 00	441 00	40 00	29 90	770 00	4,863 64	5	22 00
27	97	1,803 25	4,672 75	66 79	48 17	6,476 00	10,502 05	.....	.....
50	1,030	6,200 00	50,077 83	124 00	48 61	56,277 83	100,020 13	21	108 35
10	40	825 00	1,354 20	82 50	31 85	2,179 20	5,876 30	5	47 17
9.5	19	522 50	760 00	55 00	40 00	1,282 50	1,607 00	.....	.....
9.5	19	550 00	625 00	57 89	32 89	1,175 00	1,540 49	10	52 95
20	70	1,100 00	2,250 00	55 00	32 14	3,350 00	4,672 41	41	448 20
20	320	2,080 00	13,980 00	104 00	43 69	16,060 00	45,726 14	.....	.....
10	60	800 00	2,020 00	80 00	33 67	2,820 00	4,019 85	13	68 05
10	30	600 00	923 75	60 00	30 79	1,523 75	2,230 17	5	29 00
9	9	360 00	225 00	40 00	25 00	585 00	693 10	1	1 65
9	27	630 00	900 00	70 00	33 33	1,530 00	1,882 10	9	62 77
9	18	450 00	522 00	50 00	29 00	972 00	1,221 72	11	58 75
10	10	500 00	280 00	50 00	28 00	780 00	932 10	.....	.....
9	9	405 00	225 00	45 00	25 00	630 00	745 04	12	62 91
8	17	400 00	510 00	50 00	30 00	910 00	1,749 14	9	29 00
19	209	2,446 11	8,288 75	128 74	39 66	10,734 86	14,612 70	39	571 80
10	.....	400 00	.....	40 00	.....	400 00	647 59	3	.....
9	27	500 00	837 00	55 56	31 00	1,337 00	1,964 35	40	274 50
10.2	48.5	768 75	1,455 00	75 00	30 00	2,223 75	2,876 21	27	319 38
.....	24	.....	760 00	.....	31 66	760 00	1,071 85	.....	.....
18	18	765 00	675 00	42 50	37 50	1,440 00	1,897 98	16	103 40
9	9	378 00	238 50	42 00	26 50	616 50	925 14	5	23 00
10	90	850 00	3,050 00	85 00	32 89	3,900 00	5,353 70	32	355 52
9	126	1,300 01	6,300 00	144 45	50 00	7,600 01	17,652 08	16	.....
9	9	360 00	225 00	40 00	25 00	585 00	689 82	12	.....
9	9	450 00	270 00	50 00	30 00	720 00	926 17	2	8 50
9	9	270 00	225 00	30 00	25 00	495 00	706 01	4	10 50
10	30	500 00	948 50	50 00	31 61	1,448 50	2,261 65	.....	.....
10	8	400 00	196 88	40 00	24 61	596 88	847 29	5	5 50
10	10	375 00	200 00	37 50	20 00	575 00	664 38	.....	.....
9	18	432 00	540 00	48 00	30 00	972 00	1,244 22	12	75 25
8	8	480 00	240 00	60 00	30 00	720 00	969 84	1	3 00
20	50	1,100 00	1,400 00	55 00	28 00	2,500 00	3,339 58	34	312 20
9	18	450 00	585 00	50 00	32 50	1,035 00	5,461 86	3	.....
10	48.7	600 00	1,512 50	60 00	31 02	2,112 50	7,248 61	2	.....
9	18	477 00	576 00	53 00	32 00	1,053 00	1,327 81	5	4 00
9	9	360 00	252 00	40 00	28 00	612 00	731 75	5	14 66
6	110	210 00	5,170 00	35 00	47 00	5,380 00	28,680 63	.....	.....
31	240	2,975 00	12,100 00	95 97	50 42	15,075 00	26,696 19	.....	.....
10	30	500 00	851 00	50 00	28 37	1,351 00	2,379 06	11	87 50
10	20	650 00	300 00	65 00	25 00	1,150 00	1,473 85	22	194 00
.....	63	.....	1,935 00	.....	30 71	1,935 00	2,353 96	.....	.....
9	9	333 00	225 00	37 00	25 00	558 00	789 53	.....	.....
20	10	750 00	250 00	37 50	25 00	1,000 00	1,371 26	15	101 93
9	126	1,000 00	4,416 00	111 11	35 05	5,416 00	8,138 75	22	303 10
9	9	405 00	234 00	45 00	26 00	639 00	711 19	8	19 00

TABLE XVI.—CONTINUED.

Districts.	Counties.	Number of children between 5 and 20 years.	Number of children that attended school during the year.	Number of days' school.	Percentage of attendance.	Estimated valuation of school property.	Total indebtedness.	Number of teachers employed. Men.	Women.
Overisel	Allegan	126	98	180	84	$2,000		1	1
Ovid	Clinton	396	366	200	84	15,000		2	7
Owosso	Shiawassee	2,263	1,896	196	92	150,000	$31,000 00	6	38
Oxford	Oakland	286	248	200	77	15,000		2	6
Palms	Sanilac	80	65	200	50	1,000			1
Palmyra	Lenawee	89	65	176	83	2,000		1	1
Palo	Ionia	90	68	198	87	4,000		2	1
Paris	Mecosta	81	59	179	95	2,000			2
Parma	Jackson	150	123	200	88	10,000		2	2
Paw Paw	Van Buren	384	316	196	96	40,000		3	8
Pentwater	Oceana	312	249	179	88	10,000	300 00	1	7
Perry	Shiawassee	208	176	200	87	300		1	4
Petersburg	Monroe	209	181	180	83	9,000		1	4
Petoskey	Emmet	1,461	1,055	190	95	35,000	15,000 00	2	23
Pewamo	Ionia	146	121	180	61	1,200		1	2
Pickford	Chippewa	164	100	200	72	400		1	2
Pierson	Montcalm	118	121	178	56	1,200		1	1
Pigeon	Huron	272	166	177	78	4,000	1,950 00	1	2
Pinckney	Livingston	130	118	200	84	6,000		2	2
Pinconning	Bay	306	231	200	65	3,000	350 00	2	3
Pinnebog	Huron	131	91	200	60	2,000		2	1
Pittsford	Hillsdale	119	86	175	80	4,000		1	2
Plainwell	Allegan	343	288	190	92	1,200		1	9
Plymouth	Wayne	464	374	200	72	17,000	2,000 00	1	9
Pontiac	Oakland	2,088	1,499	195	94	110,000	54,000 00	4	31
Port Austin	Huron	279	181	194	77	3,000		1	3
Port Hope	Huron	225	112	192	76	1,800		1	3
Port Huron	St. Clair	5,990	3,976	200	96	275,000		4	72
Port Sanilac	Sanilac	120	115	180	67	2,000		1	2
Portland	Ionia	496	540	185	83	16,000		2	11
Potterville	Eaton	149	154	173	72	3,000		1	2
Prairieville	Barry	76	55	179	82	1,000		1	1
Prattville	Hillsdale	113	72	180	74	800		1	1
Prescott	Ogemaw	115	100	180	50	1,000			2
Quincy	Branch	307	233	200	92	10,000		1	7
Quincy Tp	Houghton	491	273	200	80	8,000		1	6
Raveuna	Muskegon	177	142	180	67	3,000		1	2
Reading	Hillsdale	252	242	190	75	8,500		1	6
Reed City	Osceola	704	608	200	72	26,000	4,500 00	1	12
Reese	Tuscola	205	112	200	59	1,600		1	1
Remus	Mecosta	116	83	180	73	3,600	1,220 00	1	1
Republic Tp	Marquette	835	647	200	89	16,000		1	11
Richland	Kalamazoo	121	95	190	97	4,000			4
Richmond	Macomb	217	192	180	91	8,000		2	3
Ridgeway	Lenawee	81	68	180	85	2,000		1	1
Rochester	Oakland	383	296	200	80	14,000		1	5
Rockford	Kent	211	170	200	81	10,000	2,200 00	1	5
Rockland Tp	Ontonagon	324	282	200	87	6,000		2	5
Rockwood	Wayne	101	93	180	61	3,000	1,079 79	1	1
Rogers City	Presque Isle	327	260	105	79	2,500	310 00	2	4
Romeo	Macomb	487	413	200	75	29,994		3	9
Romulus	Wayne	127	89	180	42	3,000	1,005 00	1	1
Roscommon	Roscommon	256	143	177	61	3,500	3,000 00	1	2
Rose City	Ogemaw	218	163	185	74	3,000	2,500 00	1	2
Royal Oak	Oakland	227	200	197	77	1,500		1	3
Saganing	Arenac	146	141	180	28	1,000		1	2
Saginaw	Saginaw	8,297	4,998	190	95	435,975		14	127
Saginaw, W. S.	Saginaw	5,417	3,539	200	72	198,149	20,000 00	9	72

TABLE XVI.—CONTINUED.

Aggregate number of months taught by all teachers.		Total wages of teachers for the year.		Average monthly wages of teachers.		Amount paid for superintendence and instruction.	Total cost of school.	Number of non-resident pupils.	Tuition of non-resident pupils.
Men.	Women.	Men.	Women.	Men.	Women.				
9	9	$360 00	$225 00	$40 00	$25 00	$585 00	$899 88	6	$18 00
20	70	1,450 00	2,579 50	75 00	36 85	4,029 50	5,202 86	41	421 45
60	380	5,950 00	14,258 42	99 17	37 52	20,208 42	101,000 35	16	391 59
19.7	60	1,020 00	1,945 00	51 64	32 41	2,965 00	4,960 92	12	131 36
.....	10	.....	350 00	.....	35 00	350 00	464 48	.....	.....
9	9	405 00	234 00	45 00	26 00	639 00	789 96	6	16 18
20	10	750 00	250 00	37 50	25 00	1,000 00	1,481 34	18	202 50
.....	18	.....	495 00	.....	27 50	495 00	672 20	5	15 25
20	20	1,000 00	600 00	50 00	30 00	1,600 00	2,269 52	20	182 50
26	64	1,840 00	2,240 00	70 77	35 00	4,080 00	6,152 37	50	496 84
9	62	900 00	1,893 00	100 00	30 53	2,793 00	3,838 11	8	28 53
10	40	700 00	1,250 00	70 00	31 25	1,950 00	2,734 59	29	215 75
9	36	600 00	1,057 50	66 67	29 36	1,657 50	2,268 95	12	89 83
19	218.5	1,900 00	8,808 42	100 00	40 31	10,708 42	17,901 96	37	310 36
9	18	405 00	540 00	45 00	30 00	945 00	2,187 40	1	.....
10	10	450 00	280 00	45 00	28 00	730 00	782 33	16	1 65
9	9	405 00	270 00	45 00	30 00	675 00	852 16	15	43 20
9	18	495 00	540 00	55 00	30 00	1,035 00	1,446 33	4	35 35
20	20	1,050 00	600 00	52 50	30 00	1,650 00	2,273 21	19	170 50
20	30	1,000 00	1,100 00	50 00	36 67	2,055 00	2,602 91	8	62 35
16	4	642 00	100 00	40 12	25 00	742 00	927 82	13	54 28
9	18	500 00	560 00	55 56	31 11	1,060 00	1,353 92	24	143 19
9.5	85.5	950 00	2,888 00	100 00	33 78	3,838 00	5,112 45	55	613 15
10	90	950 00	3,175 00	95 00	35 28	4,125 00	7,556 81	40	391 43
40	310	3,500 00	14,634 62	87 50	47 21	18,134 62	37,961 37	57	875 00
10	30	600 00	986 00	60 00	32 87	1,586 00	1,876 84	3	10 00
10	20	495 00	600 00	49 50	30 00	1,095 00	1,563 87	.....	.....
40	720	4,150 00	28,603 62	103 75	39 72	32,753 62	53,759 68	12	83 50
9	18	450 00	468 00	50 00	26 00	918 00	1,241 97	3	5 60
19	99.8	1,600 00	3,275 00	84 21	32 83	4,875 00	6,450 04	42	386 69
9	18	518 00	538 50	57 55	29 92	1,056 50	1,290 89	10	75 80
9	9	360 00	225 00	40 00	25 00	585 00	649 09	.....	.....
9	9	315 00	225 00	35 00	25 00	540 00	711 22	.....	.....
.....	18	.....	540 00	.....	30 00	540 00	733 00	.....	.....
10	70	850 00	2,300 00	85 00	32 86	3,150 00	4,518 37	36	342 50
10	60	1,150 00	2,600 00	115 00	43 33	3,750 00	4,986 48	6	.....
9	18	450 00	504 00	50 00	28 00	954 00	1,144 00	9	30 00
9.5	47.5	950 00	1,776 50	100 00	37 40	2,726 50	3,686 62	39	359 97
10	120	1,150 00	4,482 50	115 00	37 35	5,632 50	7,670 63	21	174 44
10	10	450 00	350 00	45 00	35 00	800 00	982 21	4	8 75
9	9	405 00	225 00	45 00	25 00	630 00	1,128 46	2	2 00
10	110	1,300 00	5,250 00	130 00	47 73	6,550 00	8,849 48	3	.....
.....	38	.....	1,377 50	.....	36 25	1,377 50	1,765 17	22	86 20
18	27	960 00	873 00	53 33	32 33	1,833 00	2,090 21	33	287 60
9	9	405 00	225 00	45 00	25 00	630 00	775 74	6	19 50
10	50	900 00	1,500 00	90 00	30 00	2,400 00	3,060 30	16	125 50
10	50	800 00	1,550 00	80 00	31 00	2,350 00	2,976 46	15	280 50
20	50	1,450 00	2,150 00	72 50	43 00	3,600 00	8,084 07	.....	.....
9	9	351 50	270 00	39 05	30 00	621 50	797 79	.....	.....
16	14	770 00	420 00	48 12	30 00	1,190 00	1,469 22	2	7 00
30	68.2	2,100 00	1,997 37	70 00	29 26	4,097 37	5,362 52	33	427 40
9	9	405 00	202 50	45 00	22 50	592 50	776 11	5	18 43
9	18	500 00	540 00	55 55	30 00	1,040 00	1,582 00	1	5 00
9.5	19	427 50	570 00	45 00	30 00	997 50	1,444 51	4	.....
10	30	550 00	850 00	55 00	28 33	1,400 00	1,601 72	7	49 00
9	15	360 00	300 00	40 00	20 00	660 00	830 44	.....	.....
140	1,270	15,050 00	58,986 42	107 50	46 45	74,046 42	100,749 11	55	1,020 16
85	720	6,850 00	29,693 88	81 76	41 11	36,553 88	53,835 73	22	205 38

TABLE XVI.—CONTINUED.

Districts.	Counties.	Number of children between 5 and 20 years.	Number of children that attended school during the year.	Number of days' school.	Percentage of attendance.	Estimated valuation of school property.	Total indebtedness.	Number of teachers employed.	
								Men.	Women.
St. Charles	Saginaw	547	475	193	55	$1,500	$3,000 00	1	7
St. Clair	St. Clair	774	628	199	92	35,000	2,500 00	2	12
St. Clair Heights	Wayne	193	119	200	50	3,000	1,200 00	2	.....
St. Ignace	Mackinac	822	519	176	64	10,000	13,875 00	2	9
St. Ignace Tp	Mackinac	55	56	100	29	1,200	500 00	1	2
St. Johns	Clinton	873	828	191	79	50,000	.....	5	16
St. Joseph	Berrien	1,385	1,052	180	90	65,000	12,221 93	3	24
St. Louis	Gratiot	594	565	196	90	25,000	13,000 00	4	10
Salem	Washtenaw	51	40	180	60	1,000	.....	1	.....
Saline	Washtenaw	239	187	190	85	25,000	3,000 00	2	6
Sand Lake	Kent	112	91	175	89	2,500	.....	1	2
Sanilac Center	Sanilac	250	225	180	70	10,000	6,500 00	1	3
Sanilac Tp. 2	Sanilac	100	61	180	57	1,500	.....	.....	1
Sanilac Tp. 3	Sanilac	71	61	176	50	600	.....	1	.....
Sanilac Tp. 8 fl	Sanilac	79	58	180	63	500	.....	1	.....
Saranac	Ionia	314	253	200	76	12,000	.....	2	5
Saugatuck	Allegan	253	197	180	70	12,000	2,400 00	1	5
Schaffer	Delta	209	106	200	58	2,000	1,800 00	.....	2
Sault Ste. Marie	Chippewa	3,000	1,997	200	93	206,000	96,000 00	7	38
Schoolcraft	Kalamazoo	195	202	180	95	24,000	450 00	2	6
Scotts	Kalamazoo	91	75	180	60	5,000	.....	1	1
Scottville	Mason	238	205	178	80	4,500	.....	1	3
Sebewaing	Huron	524	263	200	65	4,000	.....	2	2
Seney	Schoolcraft	35	47	200	30	1,500	.....	.....	1
Shelby	Oceana	365	305	180	89	6,000	.....	1	6
Shepherd	Isabella	242	214	180	87	2,500	.....	1	3
Sheridan	Montcalm	168	135	160	80	6,000	5,700 00	1	3
Sherman	Wexford	163	124	177	82	3,000	.....	.....	3
Sherwood	Branch	125	79	190	26	6,000	.....	2	2
Sidnaw	Houghton	147	133	200	69	5,000	.....	1	2
Smyrna	Ionia	64	50	200	80	800	.....	1	1
Soule	Huron	109	71	200	70	600	.....	.....	1
South Arm	Charlevoix	190	140	180	72	3,000	1,700 00	1	2
South Boardman	Kalkaska	101	115	180	71	300	.....	1	1
South Frankfort	Benzie	202	142	200	61	4,500	.....	1	3
South Haven	Van Buren	1,047	799	190	86	30,000	3,000 00	1	17
South Lyon	Oakland	178	155	190	92	4,000	.....	1	4
South Rockwood	Monroe	133	102	171	54	3,000	.....	1	2
Sparta	Kent	379	301	200	84	12,000	9,000 00	1	6
Spencer Tp. 1 fl	Kent	117	79	160	70	900	.....	1	2
Spring Lake	Ottawa	304	233	180	59	6,800	20 00	1	5
Springport	Jackson	147	151	200	88	5,000	.....	2	3
Springwells Tp. 1	Wayne	693	548	192	67	40,000	29,000 00	1	9
Springwells Tp. 3	Wayne	406	193	200	73	12,000	9,400 00	.....	5
Springwells Tp. 4	Wayne	1,148	654	200	55	20,000	9,000 00	1	9
Springwells Tp. 7	Wayne	756	536	200	91	22,400	17,000 00	1	10
Stambaugh	Iron	456	308	146	80	7,269	.....	2	8
Standish	Arenac	467	366	200	92	8,000	4,000 00	1	5
Stanton	Montcalm	424	376	190	80	9,000	.....	1	8
Stanwood	Mecosta	129	107	180	31	1,600	200 00	1	1
Stephenson Tp	Menominee	1,173	824	166	70	15,375	3,263 21	4	15
Sterling	Arenac	229	160	180	47	3,400	.....	2	2
Stevensville	Berrien	281	170	156	72	5,000	400 00	1	4
Stockbridge	Ingham	203	151	200	90	5,000	.....	4	2
Stronach	Manistee	192	134	200	64	2,700	.....	1	1
Sturgis	St. Joseph	653	495	180	95	50,000	.....	1	13
Sumner	Gratiot	109	100	180	79	5,000	.....	1	1
Sunfield	Eaton	160	118	190	85	4,000	.....	1	4

TABLE XVI.—Continued.

Aggregate number of months taught by all teachers.		Total wages of teachers for the year.		Average monthly wages of teachers.		Amount paid for superintendence and instruction.	Total cost of school.	Number of non-resident pupils.	Tuition of non-resident pupils.
Men.	Women.	Men.	Women.	Men.	Women.				
10	66	$800 00	$2,142 00	$80 00	$32 46	$2,942 00	$4,368 19	11	$55 50
20	120	1,500 00	4,100 00	75 00	34 17	5,600 00	8,218 54	24	158 85
20	.....	1,100 00	.....	55 00	.....	1,100 00	1,504 90	4	.....
18	81	990 00	2,624 50	55 00	32 40	3,614 50	6,851 23	.....	.....
5	10	150 00	300 00	30 00	30 00	450 00	972 62	.....	.....
50	151	3,180 00	5,825 00	63 60	38 57	9,005 00	13,985 92	58	972 00
27	216	2,750 00	9,086 74	101 85	42 07	11,836 74	28,040 32	16	146 84
40	100	2,400 00	3,155 00	60 00	31 55	5,555 00	8,312 25	33	301 57
9	.....	300 00	.....	33 33	.....	300 00	375 34	7	17 75
19.5	55	1,090 00	1,780 00	55 90	32 36	2,870 00	6,666 13	38	362 14
9	18	450 00	450 00	50 00	25 00	900 00	1,174 45	16	100 34
9	27	540 00	765 00	60 00	28 33	1,305 00	2,147 63	15	39 75
.....	9	.....	315 00	.....	35 00	315 00	404 70	.....	.....
9	.....	300 00	.....	33 33	.....	300 00	370 92	4	.....
9	.....	270 00	.....	30 00	.....	270 00	351 47	4	.....
20	50	850 00	1,375 00	42 50	27 50	2,225 00	3,059 25	53	385 80
9	39	800 00	1,065 00	88 89	27 30	1,865 00	2,883 70	17	67 32
.....	20	.....	750 00	.....	37 50	750 00	992 33	.....	.....
64.5	378	4,950 00	17,927 00	76 74	47 42	22,877 00	74,057 13	.....	.....
18	54	1,450 00	1,800 00	85 55	33 33	3,250 00	4,725 83	16	184 37
8	9	320 00	225 00	40 00	25 00	545 00	1,142 12	10	24 33
9	27	495 00	945 00	55 00	35 00	1,440 00	1,818 39	17	69 50
20	20	950 00	600 00	47 50	30 00	1,550 00	1,928 85	6	5 00
.....	10	.....	750 00	.....	75 00	750 00	1,076 00	.....	.....
9	54	750 00	1,710 00	83 33	31 67	2,460 00	4,138 18	12	147 29
9	27	540 00	810 00	60 00	30 00	1,350 00	1,731 57	5	30 00
8	24	600 00	720 00	75 00	30 00	1,320 00	3,530 28	24	125 63
.....	27	.....	1,080 00	.....	40 00	1,080 00	1,540 02	12	13 50
19	19	783 75	570 00	41 25	30 00	1,353 75	2,124 65	16	125 55
10	20	650 00	850 00	65 00	42 50	1,500 00	2,327 58	.....	.....
10	10	350 00	250 00	35 00	25 00	600 00	770 15	4	10 00
.....	10	.....	380 00	.....	38 00	380 00	516 56	.....	.....
9	18	450 00	540 00	50 00	30 00	990 00	1,433 25	.....	.....
9	9	405 00	360 00	45 00	40 00	765 00	809 05	.....	.....
10	30	650 00	900 00	65 00	30 00	1,550 00	2,131 20	.....	.....
9.5	152	1,200 00	5,242 50	126 31	34 49	6,442 50	9,532 20	120	1,242 69
9.5	38	600 00	1,140 00	63 16	30 00	1,740 00	2,120 87	28	302 35
9	9	365 00	195 00	40 55	21 67	560 00	625 53	1	.....
10	59	750 00	2,064 38	75 00	34 99	2,814 38	14,465 43	9	111 15
6	10	168 00	264 00	28 00	26 40	432 00	513 15	.....	.....
9	44.5	700 00	1,380 00	77 78	31 01	2,080 00	2,546 47	4	9 23
20	30	950 00	1,000 00	47 50	33 33	1,950 00	2,451 85	13	99 59
10	90	1,000 00	3,800 00	100 00	42 22	4,800 00	15,173 90	.....	.....
.....	50	.....	2,300 00	.....	46 00	2,300 00	4,122 70	.....	.....
10	90	900 00	3,000 00	90 00	33 33	3,900 00	5,684 78	.....	.....
10	93.2	1,050 00	3,422 00	105 00	36 71	4,472 00	9,059 17	15	71 70
16	65	910 00	2,425 00	56 88	37 00	3,335 00	5,682 36	.....	.....
10	50	700 00	1,600 00	70 00	32 00	2,300 00	3,328 43	10	.....
9 5	76	807 50	2,582 50	85 00	33 99	3,390 00	4,283 93	12	63 50
9	9	405 00	270 00	45 00	30 00	675 00	909 91	7	13 50
34	125.7	1,772 00	4,279 00	52 12	34 03	6,051 00	10,899 21	.....	.....
16	11	705 00	330 00	44 06	30 00	1,035 00	1,220 77	.....	.....
8	32	500 00	1,000 00	62 50	31 25	1,500 00	1,903 84	5	37 75
30	20	1,480 00	660 00	49 33	33 00	2,140 00	2,605 32	15	122 96
10	10	500 00	350 00	50 00	35 00	850 00	1,614 21	.....	.....
9	117	1,000 00	3,832 20	111 11	32 75	4,832 20	7,276 96	17	151 45
9	9	360 00	270 00	40 00	30 00	630 00	853 83	1	.....
9 5	27.5	427 50	636 50	45 00	23 15	1,064 00	1,442 84	6	57 00

TABLE XVI.—CONTINUED.

Districts.	Counties.	Number of children between 5 and 20 years.	Number of children that attended school during the year.	Number of days' school.	Percentage of attendance.	Estimated valuation of school property.	Total indebtedness.	Number of teachers employed.	
								Men.	Women.
Sutton's Bay	Leelanau	242	82	157	77	$6,000		1	2
Swartz Creek	Genesee	60	51	180	87	2,000		1	1
Tawas City	Iosco	482	330	200	68	7,500		1	6
Tecumseh	Lenawee	586	459	181	95	26,000		1	14
Tekonsha	Calhoun	180	144	180	84	5,500		2	2
Thompson	Schoolcraft	174	127	180	62	2,500			2
Thompsonville	Benzie	345	283	178	70	3,500		1	4
Thornville	Lapeer	87	72	175	54	2,500		1	1
Three Oaks	Berrien	403	284	180	62	4,000		2	6
Three Rivers	St. Joseph	918	794	190	91	25,000		4	21
Traverse City	G'd Traverse	2,752	2,135	176	97	140,000	$25,000 00	4	46
Trenton	Wayne	415	312	200	67	22,000	20,000 00	1	4
Trufant	Montcalm	184	143	180	76	1,200		1	2
Turner	Arenac	275	215	180	48	2,500	1,524 20	1	2
Tuscola	Tuscola	119	78	180	73	1,500		1	1
Tustin	Osceola	137	131	200	81	3,500	1,000 00	1	2
Twining	Arenac	229	190	200	42	1,500	1,950 00		2
Ubly	Huron	182	175	200	61	2,000		1	3
Union City	Branch	370	305	200	92	2,500		2	11
Unionville	Tuscola	227	149	200	67	2,500		1	2
Utica	Macomb	255	192	200	81	10,000		1	4
Vandalia	Cass	145	132	180	87	6,000		1	3
Vanderbilt	Otsego	188	113	180	50	2,000		2	1
Vassar	Tuscola	524	441	195	71	25,000		2	10
Vermontville	Eaton	204	171	190	32	10,000		1	5
Vernon	Shiawassee	150	103	200	88	6,500	3,000 00	1	3
Vicksburg	Kalamazoo	259	232	180	81	8,000	1,600 00	3	4
Vriesland	Ottawa	162	125	200	81	2,300		1	1
Waldron	Hillsdale	130	90	177	90	2,500		1	3
Walled Lake	Oakland	79	64	200	64	2,000		1	1
Warren	Macomb	118	72	180	69	2,000		1	1
Warren Tp. 1 fl	Macomb	107	86	180	61	1,600		1	2
Washington Tp. 4	Sanilac	71	58	180	62	1,000			1
Washington Tp. 12 fl	Macomb	78	63	200	96	1,500		1	1
Waterford	Oakland	68	62	180	96			1	1
Watervliet	Berrien	363	282	180	90	10,000	2,500 00	3	5
Watrousville	Tuscola	108	95	180	73	2,500		1	1
Wayland	Allegan	162	140	180	72	7,500	3,000 00	2	2
Wayne	Wayne	351	316	200	95	15,000		1	12
Webberville	Ingham	138	93	180	89	4,000		2	2
Weidman	Isabella	192	157	180	58	2,400	900 00	1	2
West Bay City	Bay	4,319	3,187	193	94	150,000	94,000 00	7	54
West Branch	Ogemaw	532	433	190	73	10,000	12,000 00	1	5
Weston	Lenawee	101	86	179	65	4,000		1	1
Wheeler	Gratiot	94	76	180	50	1,000		1	
White Cloud	Newaygo	190	182	176	70	7,000	1,500 00	1	3
Whitehall	Muskegon	534	374	194	84	30,000		3	10
White Pigeon	St. Joseph	186	146	200	97	18,000	75 00	1	7
White Rock	Huron	59	45	160	50	700		1	
Whittemore	Iosco	148	102	196	65	1,200		1	1
Williamsburg	G'd Traverse	93	78	180	53	1,300	73 00	1	1
Williamston	Ingham	344	298	193	94	20,000		2	7
Wixom	Oakland	48	42	180	45	1,600		1	1
Wolverine	Cheboygan	245	189	180	72	6,000	2,500 00	3	2
Woodland	Barry	116	90	180	90	3,000		1	2
Wyandotte	Wayne	1,970	905	200	93	45,000	27,500 00	1	19
Wyoming Tp. 7	Kent	241	150	192	85	4,000	3,000 00	1	1

TABLE XVI.—CONTINUED.

Aggregate number of months taught by all teachers.		Total wages of teachers for the year.		Average monthly wages of teachers.		Amount paid for superintendence and instruction.	Total cost of school.	Number of non-resident pupils.	Tuition of non-resident pupils.
Men.	Women.	Men.	Women.	Men.	Women.				
8	16	$400 00	$560 00	$50 00	$35 00	$960 00	$1,329 38	1	.....
9	9	405 00	225 00	45 00	25 00	630 00	802 46	18	$45 00
10	60	650 00	2,100 00	65 00	35 00	2,750 00	3,637 80	8	6 00
9.5	133	1,200 00	5,175 00	126 32	38 91	6,375 00	8,813 37	44	608 74
18	18	855 00	540 00	47 50	30 00	1,395 00	2,017 76	19	164 41
.....	18	.....	810 00	.....	45 00	810 00	1,094 30	.....	.....
40	36	495 00	1,260 00	55 00	35 00	1,755 00	2,500 48	1	.....
9	9	360 00	252 00	40 00	28 00	612 00	784 06	1	2 00
16	47	1,095 00	1,658 75	68 44	35 29	2,753 75	3,420 39	14	132 75
38	199.5	2,808 75	7,631 00	73 91	38 25	10,439 75	14,860 15	13	205 00
36	414	3,824 91	18,574 50	106 25	44 88	22,399 41	43,793 41	112	897 84
10	40	700 00	1,320 00	70 00	33 00	2,020 00	17,415 44	9	50 00
9	9	315 00	252 00	35 00	28 00	567 00	688 50	.....	.....
9	18	405 00	540 00	45 00	30 00	945 00	1,664 84	.....	.....
9	9	360 00	180 00	40 00	20 00	540 00	729 35	4	9 00
10	20	500 00	700 00	50 00	35 00	1,200 00	1,650 21	9	27 50
.....	20	.....	800 00	.....	40 00	800 00	1,378 26	.....	.....
10	20	500 00	480 00	50 00	24 00	980 00	1,419 60	.....	.....
20	100	1,600 00	3,475 00	80 00	34 75	5,075 00	6,969 00	54	588 00
10	20	500 00	530 00	50 00	26 50	1,030 00	1,262 47	6	31 20
10	40	900 00	1,200 00	90 00	30 00	2,100 00	4,123 82	20	192 50
9	27	540 00	855 00	60 00	31 37	1,395 00	1,797 03	11	67 00
18	9	742 50	292 50	41 25	32 50	1,035 00	1,477 72	2	5 00
19.5	100	1,380 00	3,140 00	70 77	31 40	4,520 00	6,322 88	36	229 69
9.5	47.5	600 00	1,520 00	63 16	32 00	2,120 00	2,716 95	33	284 20
10	30	700 00	900 00	70 00	30 00	1,600 00	2,134 58	13	90 00
27	36	1,583 50	1,144 50	58 65	31 79	2,728 00	6,006 53	24	249 58
10	10	500 00	270 00	50 00	27 00	770 00	917 03	1	7 00
9	18	450 00	540 00	50 00	30 00	990 00	1,206 04	13	85 97
10	10	500 00	280 00	50 00	28 00	780 00	888 06	5	.....
9	9	450 00	219 00	50 00	24 33	669 00	775 52	6	27 00
3.5	14.5	140 00	354 00	40 00	24 41	494 00	535 48	2	.....
.....	9	.....	292 50	.....	32 50	292 50	342 98	.....	.....
10	10	500 00	300 00	50 00	30 00	800 00	908 33	14	121 50
10	10	480 00	270 00	48 00	27 00	750 00	1,056 45	8	39 75
25	38	1,395 00	1,530 00	55 80	40 26	2,925 00	4,064 21	15	132 75
9	9	450 00	225 00	50 00	25 00	675 00	892 76	13	61 95
18	18	975 00	495 00	54 17	27 50	1,470 00	1,941 45	54	420 25
10	92.7	850 00	2,947 00	85 00	31 79	3,797 00	4,288 08	36	396 10
9	18	384 90	450 00	42 77	25 00	834 90	1,105 12	2	5 00
9	18	405 00	495 00	45 00	27 50	900 00	1,416 00	.....	.....
70	540	5,400 00	19,645 15	77 14	36 38	25,045 15	48,550 97	13	198 68
9.5	47.5	900 00	1,670 00	94 74	35 16	2,570 00	3,928 73	20	2 50
9	9	405 00	225 00	45 00	25 00	630 00	747 06	4	10 25
9	.....	315 00	.....	35 00	.....	315 00	388 22	.....	.....
9	27	495 00	877 50	55 00	32 50	1,372 50	1,870 98	10	17 00
30	70.2	1,250 00	2,186 88	41 67	31 15	3,436 88	4,445 60	6	32 40
10	60	800 00	1,930 80	80 00	32 18	2,730 80	3,877 42	21	197 50
8	.....	200 00	.....	25 00	.....	200 00	263 30	2	.....
10	10	400 00	250 00	40 00	25 00	650 00	833 12	5	4 00
9	9	400 00	279 00	44 44	31 00	679 00	823 19	6	1 00
20	69	1,350 00	2,395 00	67 50	34 71	3,745 00	5,504 21	47	488 15
9	9	369 00	225 00	36 90	22 50	594 00	951 37	7	22 90
19.3	16.7	840 00	555 00	43 47	33 23	1,471 67	3,012 02	8	39 40
9	17.8	405 00	500 10	45 00	28 02	905 10	1,223 22	19	124 53
10	190	1,150 00	7,269 50	115 00	38 26	8,419 50	22,616 28	25	175 00
10	10	430 00	380 00	43 00	38 00	810 00	1,484 57	4	.....

TABLE XVI.—CONCLUDED.

Districts.	Counties.	Number of children between 5 and 20 years.	Number of children that attended school during the year.	Number of days' school.	Percentage of attendance.	Estimated valuation of school property.	Total indebtedness.	Number of teachers employed.	
								Men.	Women.
Wyoming Tp. 8	Kent	144	80	172	55	$1,000	.....	2	.....
Wyoming Tp. 9 fl	Kent	260	214	198	80	6,500	$4,100 00	1	3
Yale	St. Clair	410	225	200	80	10,500	2,000 00	1	6
Ypsilanti	Washtenaw	1,810	1,062	200	93	60,000	20,000 00	4	25
Yuma	Wexford	138	147	190	47	2,000	600 00	1	1
Zeeland	Ottawa	580	392	200	76	6,500	600 00	1	8
Zeeland Tp. 4 fl	Ottawa	139	50	197	74	2,000	.....	1	1
Zutphen	Ottawa	153	95	200	67	1,000	.....	1	1

TABLE XVI.—CONCLUDED.

Aggregate number of months taught by all teachers.		Total wages of teachers for the year.		Average monthly wages of teachers.		Amount paid for superintendence and instruction.	Total cost of school.	Number of non-resident pupils.	Tuition of non-resident pupils.
Men.	Women.	Men.	Women.	Men.	Women.				
11.5	.....	$299 25	.....	$26 02	.....	$299 25	$362 65	.....	.....
10	30	600 00	$950 00	60 00	$31 67	1,550 00	2,199 75	18	$97 75
10	60	750 00	1,800 00	75 00	30 00	2,550 00	4,252 41	25	261 51
40	250	4,125 00	10,161 25	103 12	40 64	14,286 25	36,496 67	69	905 81
9.5	9.5	422 50	285 00	44 47	30 00	707 50	1,644 90	2	.....
10	80	536 25	2,277 50	53 62	28 47	2,813 75	4,149 44	5	62 97
10	10	450 00	200 00	45 00	20 00	650 00	859 02	.....	.....
8	10	304 00	240 00	38 00	24 00	544 00	723 36	.....	.....

*TABLE XVII.

Miscellaneous statistics of city schools as reported

Incorporated cities.	School population from inspector's report.	Enrollment.				Average number belonging.				Average daily attendance.			
		High school department.	Grammar department.	Primary department.	Whole school.	High school department.	Grammar department.	Primary department.	Whole school.	High school department.	Grammar department.	Primary department.	Whole school.
Adrian	2,547	277	615	1,012	1,904	229	459	714	1,402	221	430	664	1,315
Albion	1,244	201	318	486	1,005	171	256	333	760	166	236	299	701
Alpena	4,325	96	481	1,459	2,036	84	433	1,120	1,637	82	384	1,063	1,529
Ann Arbor	3,197	621	.....	11,779	2,400	504	.....	31,614	2,118	481	.....	31,552	2,033
Au Sable	608	63	172	281	516	59	117	257	433	54	100	188	342
Battle Creek	4,475	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bay City	8,842	634	2,093	4,070	6,797	392	1,117	2,283	3,792	382	1,086	2,188	3,656
Belding	714	106	213	347	666	88	173	269	530	81	166	238	485
Benton Harbor	1,770	175	546	846	1,567	123	414	563	1,100	123	412	565	1,100
Bessemer	935	73	206	712	991	63	184	575	822	56	174	511	741
Big Rapids	1,439	140	411	547	1,098	120	300	475	895	113	325	370	808
Cadillac	1,860	183	722	920	1,825	161	493	759	1,413	157	425	677	1,259
Charlotte	887	154	312	473	939	132	270	318	720	128	258	310	696
Cheboygan	2,355	95	571	1,187	1,853	69	398	652	1,119	64	359	592	1,015
Clare	560	65	155	245	465	47	126	188	361	41	119	166	326
Coldwater	1,633	183	257	653	1,093	158	217	547	922	153	208	518	879
Corunna	394	75	114	192	381	71	95	140	306	69	90	128	287
Crystal Falls	1,061	70	301	775	1,146	55	170	553	778	52	167	502	721
Detroit	82,368	2,829	17,522	41,664	62,015	2,230	9,306	20,711	32,247	2,151	8,968	19,745	30,864
Dowagiac	1,216	141	307	755	1,203	127	226	545	898	124	224	517	865
East Tawas	680	59	110	292	461	45	107	284	436	40	103	260	403
Eaton Rapids	514	132	175	204	511	120	169	199	497	127	166	195	488
Escanaba	3,021	131	532	1,410	2,073	113	347	864	1,324	108	326	774	1,208
Flint	3,287	437	829	1,246	2,512	371	740	968	2,079	364	725	985	2,074
Gladstone	922	44	173	577	794	34	139	407	580	33	135	392	560
Gladwin	242	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Grand Haven	1,622	146	493	666	1,305	98	440	590	1,128	95	430	570	1,095
Grand Ledge, N. S.	252	16	72	135	223	12	58	98	168	10	50	72	132
Grand Ledge, S. S.	277	72	94	135	301	68	89	101	258	60	80	92	232
Grand Rapids	26,630	1,639	6,920	13,458	22,017	1,165	4,061	8,022	13,248	1,106	3,782	7,521	12,409
Greenville	873	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Harrison	168	35	50	73	158	29	43	68	140	23	41	61	125
Hastings	701	135	221	310	666	116	198	222	536	112	190	209	511
Hillsdale	963	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Holland	2,381	167	769	1,311	2,247	142	553	896	1,591	138	526	828	1,492
Hudson	577	91	81	220	392	65	75	159	299	55	71	145	271
Ionia	1,415	161	440	630	1,231	128	256	388	771	115	194	368	677
Iron Mountain	3,045	121	557	1,698	2,376	107	487	1,475	2,069	102	455	1,364	1,921
Ironwood	3,119	170	887	1,321	2,378	160	760	1,201	2,121	145	675	1,155	1,975
Ishpeming	4,456	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Jackson	6,033	355	1,214	2,485	4,054	311	933	1,869	3,113	309	884	1,750	2,943
Kalamazoo	6,108	461	1,902	3,318	5,681	373	1,261	1,893	3,527	362	1,179	1,768	3,309
Lansing	4,388	476	1,044	1,570	3,090	386	965	1,449	2,800	377	944	1,435	2,756
Lapeer	693	133	173	303	609	109	149	255	513	101	130	195	426
Ludington	2,621	184	511	1,270	1,965	157	397	1,065	1,619	150	366	1,026	1,543
Mackinac Island	238	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Manistee	4,681	269	881	2,091	3,241	224	684	1,604	2,512	214	655	1,496	2,365
Manistique	1,254	42	351	1,045	1,438	36	205	524	765	35	188	472	695

* Where a blank occurs the item was not reported.
† Superintendent included.
‡ Includes grammar department.

TABLE XVII.

by superintendents for the school year 1900–1901.

Number of regular teachers employed.								Portion of superintendent's time devoted to supervision.	Number of special teachers.	Does school give special instruction in—			
H. S. departm't.		Grammar departm't.		Primary departm't.		† Whole school.							
Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.			Vocal music?	Drawing?	Penmanship?	Manual training?
2	5 5	.....	13.5	.....	18	3	37	all	2	yes	yes	no	no
2.3	4	.....	7	.....	10	3	21	7-10	2	yes	yes	no	no
3	3	.....	11	.....	24	3	38	all	1	no	no	no	no
7	13	.....	.....	.....	44	8	57	all	3.2	yes	yes	no	yes
.5	1	.....	3	.....	4	1	8	1-2	.....	no	no	no	no
6	10	.....	35	.....	65	7	110	all	4	yes	yes	yes	yes
.5	4	.....	3	.....	7	1	14	1-2	.....	yes	yes	yes	no
.2	4	2	11	.....	15	3	30	5-6	1	yes	yes	yes	no
.1	3	.....	4	.....	13	1	20	11-12	1	yes	yes	no	no
.2	5	.....	7	.....	12	1	24	3-4	.....	no	no	no	no
.....	6	.....	11	.....	16	1	33	all	1	yes	yes	yes	.....
1.1	4	.....	8.5	.....	9.5	2	22	6-7	1	yes	no	no	no
3.5	.....	2	7	.....	14	6	21	1-2	.....	no	no	no	no
1.2	1	.5	2.5	.....	3.5	2	7	1-4	.....	no	no	no	no
3.9	3	.....	7	.....	13	4	23	1-7	.....	yes	yes	yes	no
.5	2.3	.....	2.7	.....	4	1	9	1-2	2	yes	yes	no	no
.2	2	.....	4	.....	11	1	17	3-4	1	yes	yes	no	no
34	77	22	297	6	491	63	865	all	5	yes	yes	yes	yes
2.3	2	.....	6	.....	11	3	19	5-7	2	yes	yes	yes	no
.5	1	.....	2	.....	6	1	9	1-2	.....	no	no	no	no
1.3	3	.....	4	.....	5	2	12	2-3	1	yes	no	no	no
1.5	3	.....	8	1	18	3	29	1-2	.....	no	no	no	no
4	9	.....	20	.....	27	5	56	all	2	yes	yes	no	yes
.4	1	.....	4	.....	10	1	15	5-8	.....	no	no	no	no
1.1	3	.....	9	.....	15	2	27	6-7	1	no	no	yes	no
.8	1	.....	1	.....	2	1	4	1-6	.....	no	no	no	no
1	2	.....	2	.....	2	1	6	none	.....	no	no	no	no
11.7	25	4.7	118	2.6	211	20	354	all	10	yes	yes	no	yes
1	.....	.....	1	.....	2	1	3	.....	.....	no	no	no	no
2.5	2	.....	5	.....	7	3	14	1-2	1	yes	yes	yes	no
2	3	.....	12	.....	19	3	34	all	1	yes	yes	yes	no
.8	3	.....	2	.....	4	1	9	1-4	1	yes	yes	no	no
1 2	5.5	.....	10	.....	12	2	27.5	3-4	.5	no	yes	yes	no
3	2	1	11	.....	33	5	46	all	.....	no	no	no	no
2	2	.....	20	.....	31	3	53	all	2	yes	yes	no	no
4	7	5	22	.....	48	10	77	all	2	yes	yes	.....	no
3.4	10.5	.3	33	.3	43.5	4	87	all	16	yes	yes	no	yes
2	9	.....	28	.....	36	3	73	all	2	yes	yes	no	no
1.2	5	.....	4	.....	9	2	18	5-6	.....	no	no	no	no
2	4	.....	11	.....	26	3	41	all	.....	no	no	no	no
5	6	1	18	.....	44	7	68	all	2	yes	yes	no	no
1.3	1	.....	5	.....	14	2	20	2-3	1	yes	.....	.....	.....

*TABLE XVII.—CONTINUED.

Incorporated cities.	School population from inspector's report.	Enrollment.				Average number belonging.				Average daily attendance.			
		High school department.	Grammar department.	Primary department.	Whole school.	High school department.	Grammar department.	Primary department.	Whole school.	High school department.	Grammar department.	Primary department.	Whole school.
Marine City	1,266	54	195	470	719	52	176	350	578	50	156	360	566
Marquette	3,120	154	532	1,592	2,278	129	501	803	1,433	124	460	730	1,314
Marshall	1,036	178	287	361	826	154	237	301	692	149	229	287	665
Mason	415	108	126	216	450	88	100	148	336	86	92	137	315
Menominee	4,202	221	1,005	1,969	3,195	176	747	1,471	2,394	171	720	1,361	2,252
Midland	739	92	207	364	663	71	170	254	495	64	158	235	457
Monroe	1,600	140	306	402	848	133	241	274	648	129	220	250	599
Mt. Clemens	2,153	181	475	977	1,633	146	233	556	935	139	227	539	905
Mt. Pleasant	973	139	268	424	828	124	225	309	658	123	215	299	637
Muskegon	7,317	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Negaunee	2,370	104	382	1,067	1,553	82	305	785	1,172	79	290	692	1,061
Niles	1,171	154	316	578	1,048	149	272	458	879	146	260	440	846
North Muskegon	170	6	44	79	129	.....	.....	.....	92	.....	.....	.....	77
Norway	1,582	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Owosso	2,263	262	757	1,147	2,166	224	566	858	1,588	212	500	821	1,533
Petoskey	1,461	106	421	690	1,217	93	296	458	847	89	285	427	801
Pontiac	2,088	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Port Huron	5,990	290	1,219	2,467	3,976	247	1,180	1,597	3,024	231	1,092	1,560	2,883
Saginaw	8,297	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Saginaw, W. S	5,472	300	1,234	2,005	3,539	239	832	1,515	2,586	234	865	1,444	2,543
Sault Ste. Marie	3,000	195	790	1,300	2,285	165	564	1,080	1,809	.....	.....	.....	.....
St. Clair	774	89	226	313	628	87	193	234	514	85	177	218	480
St. Ignace	822	52	155	281	488	41	101	185	327	40	94	173	307
St. Joseph	1,385	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
St. Louis	594	103	174	364	641	87	121	204	412	78	113	184	375
Stanton	424	64	119	193	376	48	60	184	292	38	56	163	257
Sturgis	648	67	149	279	495	48	111	204	363	44	107	194	345
Tawas City	482	33	103	194	330	27	89	155	271	22	80	139	241
Three Rivers	918	134	234	426	794	123	203	335	661	116	197	311	624
Traverse City	2,752	325	830	950	2,105	255	725	745	1,725	240	700	735	1,675
West Bay City	4,319	140	2,000	1,187	3,327	113	509	1,378	2,000	109	484	1,248	1,841
Wyandotte	1,970	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Ypsilanti	1,810	261	361	578	1,200	226	298	417	941	216	283	391	899

* Where a blank occurs the item was not reported.
† Superintendent included.

TABLE XVII.—CONTINUED.

Number of regular teachers employed.								Portion of superintendent's time devoted to supervision.	Number of special teachers.	Does school give special instruction in—			
H. S. departm't.		Grammar departm't.		Primary departm't.		†Whole school.							
Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.			Vocal music?	Drawing?	Penmanship?	Manual training?
.5	2	1	4	.....	7	2	13	1-2	.....	no	no	no	no
2	4	1	9	.....	21	4	34	all	2	yes	yes	no	no
2.1	4	.....	7	.....	10	3	21	9-10	1	no	yes	no	no
.5	2.9	.....	2.7	.....	4.4	1	10	1-2	1	yes	.....	.....	.....
2	4	1	18	.....	30	4	52	all	5	yes	yes	no	yes
.5	2	.....	4	.....	6	1	12	1-2	.....	yes	yes	yes	no
4.3	2	.....	6	.....	6	5	14	5-7	1	no	no	yes	no
2	3	.....	7	.....	14	3	24	all	1	yes	yes	no	no
2.4	3	.....	7	.....	10	3	20	3-5	1	yes	yes	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1.1	4	.....	6	.....	20	2	30	6-7	.....	yes	yes	no	no
1.2	3	.....	6	.....	12	2	21	3-4	1	yes	no	no	no
1	.....	.....	1	.....	1	1	2	.....	.....	.....	.....	yes	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
3	3	2	12	.....	21	6	36	all	2	yes	yes	.....	.....
1.3	3	.....	8	.....	11	2	22	2-3	1	yes	no	no	no
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
2	7	1	25	.....	39	4	71	all	.....	no	no	no	no
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
4	6	4	24	.....	40	9	70	all	2	yes	yes	yes	no
2	5	3	9	1	23	7	37	all	2	yes	yes	yes	no
1.5	1	.....	4	.....	6	2	11	1-2	1	yes	no	no	no
.8	1	1	1.7	.....	4.3	2	7	1-5	.....	no	no	no	no
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
2.5	1	1	3	.....	5	4	9	1-2	.....	no	no	yes	no
.6	1	.....	2	.....	5	1	8	1-3	.....	no	no	yes	no
.5	2	.....	4	.....	5	1	11	1-2	2	yes	yes	yes	no
.8	.....	.....	2	.....	4	1	6	1-6	.....	no	no	no	no
.4	6	.....	7	.....	10	1	23	5-8	2	yes	yes	yes	no
3	7	.....	13	.....	24	4	44	all	2	yes	yes	yes	no
3	3	4	16	.....	35	8	54	all	.....	no	no	no	no
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
2.3	5	.....	8	.....	11	3	24	2-3	2	yes	yes	no	no

*TABLE XVII.—CONTINUED.

Incorporated villages.	School population from inspector's report.	Enrollment.				Average number belonging.				Average daily attendance.			
		High school department.	Grammar department.	Primary department.	Whole school.	High school department.	Grammar department.	Primary department.	Whole school.	High school department.	Grammar department.	Primary department.	Whole school.
Addison	175	64	56	108	228	53	37	74	164	51	49	67	167
Algonac	495	40	56	229	325	40	56	229	325	35	52	200	287
Allegan	647	172	240	280	692	169	230	266	665	148	220	245	613
Alma	603	90	194	261	545	71	141	215	427	66	128	216	410
Almont	280	69	73	109	251	62	59	92	213	58	55	85	198
Armada	252	72	31	135	238	65	30	103	198	60	26	98	184
Ashley	214	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Athens	178	35	34	94	163	35	34	94	163	27	31	67	125
Atlanta	112	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Attica	120	40	.....	48	88	32	.....	28	60	26	.....	18	44
Augusta	173	34	64	42	140	30	57	38	125	28	55	35	118
Bad Axe	482	99	125	224	448	90	130	212	432	83	108	197	388
Baldwin	150	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bancroft	138	35	50	55	140	31	46	46	123	28	40	38	106
Bangor	354	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Baraga	862	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bear Lake	168	45	28	66	139	43	21	50	124	39	15	54	108
Beaverton	344	30	75	120	225	25	65	95	185	20	55	100	175
Bellaire	437	36	115	204	355	32	105	184	321	.....	.....	.....	260
Bellevue	239	74	77	117	268	64	61	84	209	60	54	75	189
Benzonia	248	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Berrien Springs	190	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Birmingham	377	103	127	167	397	87	105	128	320	85	105	125	315
Blissfield, E. S.	208	52	47	112	211	40	38	90	168	38	36	84	158
Blissfield, W. S.	202	31	41	70	142	26	37	65	128	25	36	60	121
Bloomingdale	147	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Boardman	101	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Boyne City	462	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Boyne Falls	194	34	29	108	171	23	23	98	144	21	20	80	121
Breedsville	122	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Brighton	222	61	66	96	223	50	57	77	184	46	51	73	170
Britton	119	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bronson	305	59	89	137	285	53	79	122	254	48	69	102	219
Brooklyn	152	70	41	84	195	63	35	72	170	56	35	66	157
Brown City	231	41	53	89	183	37	50	84	171	34	45	79	158
Buchanan	439	89	157	185	431	73	128	146	347	70	124	137	331
Burlington	118	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Burr Oak	221	56	53	78	187	44	42	65	151	42	39	62	143
Byron	135	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Caledonia	160	44	70	43	157	40	59	37	136	30	52	33	110
Camden	111	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Capac	222	53	85	71	209	38	65	58	161	35	70	53	158
Caro	607	120	184	256	560	112	152	180	444	106	148	160	414
Carson City	296	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Carsonville	221	.....	83	71	154	.....	72	68	140	.....	42	48	90
Caseville	279	37	63	91	191	30	46	60	136	28	42	54	124
Casnovia	184	59	.....	39	98	42	.....	30	72	38	.....	25	63
Cass City	432	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cassopolis	394	69	129	156	354	58	105	132	295	55	98	125	278
Cedar Springs	289	65	72	142	279	62	66	125	253	56	58	120	234
Central Lake	355	59	139	123	321	40	118	105	263	34	84	85	203
Centreville	177	56	37	78	171	50	31	61	142	45	29	53	127
Charlevoix	814	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Chelsea	452	98	124	177	399	88	113	162	363	85	108	154	347
Chesaning	316	71	97	162	330	58	70	110	238	53	65	108	226

* Where a blank occurs the item was not reported.
† Superintendent included.

TABLE XVII.—CONTINUED.

Number of regular teachers employed.								Portion of superintendent's time devoted to supervision.	Number of special teachers.	Does school give special instruction in—			
H. S. department.		Grammar department.		Primary department.		†Whole school.							
Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.			Vocal music?	Drawing?	Penmanship?	Manual training?
1	.....	1	.....	.....	2	2	2	.....	.....	.....	.....	.....	.....
.8	1	.....	2	.....	3	1	6	1-5	.....	.....	.....	yes	.....
2.5	2	.....	6	.....	6	3	14	1-2	.....	yes	no	no	no
.4	2	.....	4	.....	4	1	10	5-8	1	yes	no	no	no
1	1	.....	2	.....	2	1	5	1-16	.....	no	no	no	no
1	1	.....	1	1	1	2	3	.....	.....	no	yes	yes	no
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1	.....	.....	1	.....	2	1	3	1-20	.....	no	no	no	no
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1	.....	.....	.....	.....	1	1	1	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1	1	.....	2	.....	1	1	4	.....	.....	yes	yes	.....	no
.6	2	.....	4	.....	4	1	10	3-8	.....	no	no	no	no
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1	.....	.....	1.2	.....	1.8	1	3	1-20	.....	yes	.....	yes	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1	.....	.....	1	.....	1	1	2	.....	.....	no	no	no	no
1	.....	1	.....	.....	2	2	2	.....	.....	.....	.....	.....	.....
.8	1	.....	2	.....	4	1	7	1-4	.....	no	yes	yes	no
.9	1.5	.....	2	.....	2.5	1	6	1-8	1	yes	no	no	no
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.9	2	.....	2.4	.....	2.6	1	7	1-8	.....	yes	yes	yes	no
.6	1	.....	1	.....	2	1	4	1-3	.....	no	no	no	no
1	.....	.....	1	.....	2	1	3	1-10	.....	no	no	no	no
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1	.....	.....	1	.....	2	1	3	.....	.....	no	no	no	no
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.9	1	.....	2	.....	2	1	5	1-8	.....	no	yes	yes	no
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.9	1	1	.5	.....	2.5	2	4	1-9	.....	no	yes	yes	no
2	.....	.....	1	.....	2	2	3	1-36	.....	no	no	no	no
1	.....	1	.....	.....	2	2	2	1-18	.....	no	yes	no	no
.6	4	.....	4	1	2	2	10	3-7	1	yes	yes	no	no
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.7	1.7	1	1	.....	2.3	2	5	1-4	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1	.....	1	1	.....	1	2	2	.....	.....	no	no	no	no
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.8	1	.....	1	.....	1	1	4	1-5	.....	no	no	yes	no
1.5	2	.....	4	.....	4	2	10	1-2	.....	no	no	no	no
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	1	1	.....	1	1	2	.....	.....	.....	.....	.....	.....
1	.....	.....	1	.....	1	1	2	1-4	.....	no	no	no	no
1	1	.....	.....	.....	1	1	2	.....	.....	.....	.....	.....	.....
.8	2	.....	3	.....	3	1	8	1-6	.....	.....	.....	.....	.....
1	1	.....	2	.....	3	1	6	1-10	.....	no	no	no	no
.8	.....	.....	2	.....	2	1	4	1-6	.....	no	yes	yes	no
.9	2	1	.....	.....	2	2	4	1-9	.....	yes	no	yes	no
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.7	3	.....	4	.....	4	1	12	1-3	1	yes	no	no	no
.8	2	.....	2	.....	3	1	7	1-4	.....	yes	.....	.....	.....

*TABLE XVII.—CONTINUED.

Incorporated villages.	School population from inspector's report.	Enrollment.				Average number belonging.				Average daily attendance.			
		High school department.	Grammar department.	Primary department.	Whole school.	High school department.	Grammar department.	Primary department.	Whole school.	High school department.	Grammar department.	Primary department.	Whole school.
Clarkston	158	52	49	39	140	47	48	35	130	35	40	28	103
Clayton	114	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Clifford	96	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Climax	132	33	55	52	140	31	51	48	130	30	43	41	114
Clinton	272	62	82	101	245	93	76	85	254	57	75	82	214
Clio	198	55	64	75	194	53	62	70	185	50	61	66	177
Coleman	413	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Coloma	250	35	91	109	235	29	66	95	190	26	66	92	184
Columbiaville	139	54	37	48	139	49	30	38	117	46	27	30	103
Concord	156	43	43	59	145	39	37	50	126	37	36	46	119
Constantine	264	75	97	116	288	62	76	83	221	59	74	77	210
Coopersville	226	49	50	96	195	44	44	84	172	41	38	72	151
Copemish	133	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Croswell	326	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Croton	63	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Custer	135	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Dansville	112	30	44	46	120	25	26	30	81	23	24	28	75
Davison	221	46	72	127	245	37	58	84	179	35	55	73	163
Dearborn	315	33	63	154	250	33	63	154	250	29	54	144	227
Decatur	348	80	89	197	366	69	81	133	283	66	75	117	258
Deckerville	180	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Deerfield	201	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Delray	1,489	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Detour	363	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Dexter	273	47	80	115	242	42	72	112	226	38	65	98	201
Douglas	176	30	56	62	148	22	40	45	107	20	33	38	91
Dryden	120	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Dundee	318	65	115	158	338	56	107	142	305	51	99	140	240
Durand	486	52	149	293	494	37	133	244	414	36	120	221	377
Eagle	71	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
East Grand Rapids	113	.....	31	42	73	.....	29	31	60	.....	28	22	50
East Jordan	407	47	98	191	336	36	87	163	286	30	81	157	268
Eau Claire	141	.....	41	62	103	.....	31	55	86	.....	28	35	63
Edmore	301	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Elkton	332	35	149	81	265	.....	.....	.....	.....	22	89	45	156
Elsie	230	79	68	111	258	76	66	86	228	44	53	71	168
Emmett	93	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Empire	222	60	50	63	173	44	42	39	125	39	38	36	113
Essexville	614	.....	113	158	271	.....	97	83	180	.....	68	70	138
Evart	461	67	144	255	466	65	133	249	447	47	103	139	289
Farmington	149	20	41	62	123	.....	.....	.....	.....	18	28	54	100
Farwell	271	13	82	144	239	10	75	130	215	12	70	125	207
Fennville	240	106	47	91	244	76	43	80	199	76	38	68	182
Fenton	613	93	210	315	618	83	190	283	556	78	162	214	454
Fife Lake	188	49	66	49	164	49	66	49	164	30	49	26	105
Flushing	214	47	74	86	207	43	71	82	196	40	65	79	184
Forestville	120	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Fowler	132	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Fowlerville	248	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Frankfort	603	62	149	273	484	40	116	193	349	41	118	177	336
Fraser	133	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Fremont	392	58	84	240	382	52	71	178	301	.....	.....	.....	256
Fruitport	137	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Gagetown	160	44	.....	59	103	35	.....	28	63	.....	.....	.....	.....
Gaines	114	16	47	57	120	12	38	49	99	12	36	45	93

* Where a blank occurs the item was not reported.
† Superintendent included.

TABLE XVII.—CONTINUED.

Number of regular teachers employed.								Portion of superintendent's time devoted to supervision.	Number of special teachers.	Does school give special instruction in—			
H. S. departm't.		Grammar departm't.		Primary departm't.		†Whole school.							
Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.			Vocal music?	Drawing?	Penmanship?	Manual training?
.8	1	1	.....	.....	1	2	2	1-5	.....	.....	.....	yes	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.9	.....	1	1	.....	1	2	2	1-10	.....	no	no	no	no
.6	.....	.....	2.7	.....	3.3	1	6	1-3	.....	no	no	no	no
.9	1	1	1	.....	2	2	4	1-9	.....	no	no	no	no
1	.....	.....	1.5	.....	2.5	1	4	.....	.....	.....	.....	.....	.....
1	1	.....	1	.....	1	1	3	.....	.....	.....	.....	.....	.....
1	1	1	.....	.....	2	2	3	1-12	.....	no	no	no	no
.6	3	.....	2	.....	2	1	7	2-5	.....	no	no	no	no
1	1	.....	1	.....	2	1	4	.....	.....	no	yes	yes	no
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1	.....	.....	1	.....	2	1	3	1-15	.....	no	no	no	no
.8	.....	.....	2	.....	2	1	4	1-5	.....	.....	.....	.....	.....
1	1	.....	2	.....	2	1	5	1-12	.....	.....	yes	yes	.....
.8	2	.....	2	.....	3	1	7	1-4	.....	no	no	yes	no
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1	2	.....	2	.....	2	1	6	1-12	.....	yes	no	no	no
1	.....	.....	1	.....	1	1	2	.....	.....	no	yes	yes	no
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1	1	.....	3	.....	4	1	8	.....	.....	no	no	no	no
1.7	1	.....	4	.....	5	2	10	1-3	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	1	.....	.....	1	1	1	.....	.....	no	no	yes	no
.6	1	.....	2	.....	4	1	7	1-3	.....	no	no	no	no
.....	.....	1	.....	.....	1	1	1	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1	.....	.....	2	.....	1	1	3	.....	.....	no	no	no	no
1	.....	.....	2	.....	2	1	4	.....	.....	no	no	no	no
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1	.....	.....	1	.....	1	1	2	.....	.....	no	yes	yes	.....
.....	.....	1	1	.....	2	1	3	.....	.....	.....	.....	.....	.....
1.5	1	.....	4	.....	5	2	10	1-2	.....	.....	.....	.....	.....
1	.....	.....	1	.....	1	1	2	.....	.....	no	no	yes	no
1	.....	.....	1	.....	2	1	3	1-15	.....	no	no	no	no
1	1	.....	1	.....	2	1	4	.....	.....	yes	yes	yes	no
1.6	1	1	3	.....	6	3	10	3-7	1	yes	yes	yes	no
1	1	.....	1	.....	1	1	3	1-12	.....	.....	.....	.....	.....
.8	1	.....	2	.....	2	1	5	1-6	.....	yes	yes	yes	no
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.5	1	.....	4	.....	5	1	10	1-2	.....	yes	yes	yes	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.9	1	.....	2	.....	5	1	8	1-8	.....	no	no	no	no
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1	.....	.....	.....	.....	1	1	1	.....	.....	no	no	yes	no
.5	.....	.5	.7	.....	1.3	1	2	.....	.....	no	no	no	no

*TABLE XVII.—CONTINUED.

Incorporated villages.	School population from inspector's report.	Enrollment.				Average number belonging.				Average daily attendance.			
		High school department.	Grammar department.	Primary department.	Whole school.	High school department.	Grammar department.	Primary department.	Whole school.	High school department.	Grammar department.	Primary department.	Whole school.
Galesburg	173	69	54	68	191	66	49	67	182	61	46	60	167
Galien	179	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Garden	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Gaylord	457	56	106	175	337	43	75	115	233	42	64	107	213
Glenwood	299	.....	65	172	237	.....	65	172	237	.....	43	86	129
Gobleville	211	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Grandville	217	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Grant	100	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Grass Lake	196	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Grosse Pointe	166	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Grosse Pointe Farms	208	.....	40	79	119	.....	36	74	110	.....	21	43	64
Hancock	1,963	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hanover	133	53	38	42	133	.....	.....	.....	.....	49	31	35	115
Harbor Beach	384	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Harbor Springs	532	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Harrietta	125	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Harrisville	215	42	36	97	175	33	30	85	148	27	29	69	125
Hart	327	81	140	181	402	81	135	173	389	63	128	157	348
Hartford	359	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hersey	133	29	37	55	121	26	31	43	100	25	30	42	97
Hesperia	217	67	41	98	206	50	40	80	170	37	29	59	125
Highland Park	158	.....	62	96	157	.....	43	62	105	.....	39	53	92
Hilman	280	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Holly	384	104	147	201	452	76	85	133	294	75	83	128	286
Homer	278	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Houghton	1,573	66	128	527	721	54	107	398	559	52	96	359	507
Howard City	461	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Howell	623	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hubbardston	145	33	40	47	120	26	35	26	87	24	31	26	81
Imlay City	514	74	123	198	395	62	109	171	342	58	103	160	321
Iron River	505	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Ithaca	625	108	171	334	613	92	141	229	462	86	130	208	424
Jonesville	332	73	106	128	307	62	72	100	234	59	90	92	241
Kalkaska	401	48	99	209	356	34	73	138	245	33	68	104	205
Kingsley	202	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Kingston	159	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Laingsburg	169	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lake Ann	111	.....	30	60	90	.....	23	51	74	.....	20	30	50
Lake City	274	21	38	185	244	19	35	172	226	15	27	154	196
Lake Linden	2,069	150	215	664	1,029	125	188	496	809	124	181	470	775
Lake Odessa	390	37	119	216	372	29	87	144	260	26	71	127	224
Lakeview	382	96	105	228	429	81	83	200	364	85	121	177	383
L'Anse	474	14	49	104	167	12	43	88	143	11	34	68	113
Laurium	7,960	5	81	717	803	5	81	550	636	5	80	518	603
Lawrence	211	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lawton	248	51	87	120	258	45	75	87	207	40	64	80	184
Leonard	112	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
LeRoy	222	31	36	126	193	25	27	95	137	23	25	93	131
Leslie	305	62	76	129	267	60	66	111	237	61	63	123	247
Lexington	196	40	60	60	160	35	54	52	141	35	52	53	140
Linden	154	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lisbon	123	18	32	40	90	16	32	40	88	.....	.....	.....	.....
Litchfield	161	49	40	70	159	43	37	58	138	39	32	52	123
Lowell	656	130	185	202	517	111	171	150	432	92	91	89	272
Luther	297	42	82	147	271	34	64	111	209	31	55	86	172

* Where a blank occurs the item was not reported.
† Superintendent included.

TABLE XVII.—CONTINUED.

Number of regular teachers employed.								Portion of superintendent's time devoted to supervision.	Number of special teachers.	Does school give special instruction in—			
H. S. departm't.		Grammar departm't.		Primary departm't.		†Whole school.							
Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.			Vocal music?	Drawing?	Penmanship?	Manual training?
1.8	1	.....	1.7	.....	1.3	2	4	1-4	.....	no	no	no	no
.9	1.5	.....	2	.....	2.5	1	6	2-15	1	yes	yes	no	no
.....	.....	1	1	.....	2	1	3	.....	.....	.....	.....	.....	.....
.....	.....	1	.....	.....	1	1	1	.....	.....	no	no	yes	no
.9	.....	.....	1.7	.....	1.3	1	3	1-10	.....	no	no	no	no
1	.....	.....	1	.....	2	1	3	1-10	.....	no	no	yes	no
.8	2	.....	3	.....	3	1	8	1-6	.....	no	no	yes	no
1	.....	.....	1	.....	1	1	2	.....	.....	no	no	no	no
1	1	.....	1	.....	2	1	4	.....	.....	no	no	yes	no
.....	.....	.9	1	.....	2	1	3	1-10	.....	yes	yes	yes	no
.8	2	.....	2	.....	3	1	7	1-5	.....	no	yes	yes	no
1.3	2	.....	4	.....	13	2	19	2-3	.....	no	no	no	no
.8	.....	.2	1	.....	1	1	2	.....	.....	no	no	no	no
.8	1.5	.....	2.5	.....	3	1	7	1-6	.....	no	no	yes	no
.8	2	.....	3	.....	5	1	10	1-4	1	yes	no	no	no
.9	1.7	.....	2	.....	2	1	5	1-8	.3	yes	yes	yes	.....
.8	1	1	1	.....	4	2	6	1-6	.....	no	no	no	no
.....	.....	1	.....	.....	1	1	1	.....	.....	no	no	yes	no
1	.....	.....	1	.....	4	1	5	.....	.....	no	no	yes	no
.5	5	.....	8	.....	14	1	27	1-2	2	yes	yes	yes	no
.9	.2	.....	2.6	.....	4.2	1	7	1-10	.....	yes	no	yes	no
1.4	.....	1	5	.....	3.5	3	4	2-5	.2	no	yes	yes	no
.9	.....	.....	1.3	.....	1.7	1	3	1-8	.....	no	no	no	no
.....	.....	1	2	.....	12	1	14	.....	1	yes	yes	yes	no
.9	1	1	1	.....	2	2	4	1-9	.....	no	yes	yes	no
1	.....	.....	1	.....	2	1	3	.....	.....	no	no	yes	no
.9	1	.....	2	.....	2	1	5	1-7	.....	no	no	no	no
1	1	.....	1	.....	2	1	4	1-12	.....	no	yes	yes	.....
1	.....	.....	1	.....	1	1	2	.....	.....	.....	.....	.....	.....
1	1	.....	1	.....	2	1	4	.....	.....	yes	no	no	.....
3	2	2	3	.....	5	3	10	2-3	.....	no	no	yes	no
1	.....	.....	2	.....	2	1	4	.....	.....	no	no	no	no

*TABLE XVII.—CONTINUED.

Incorporated villages.	School population from inspector's report.	Enrollment.				Average number belonging.				Average daily attendance.			
		High school department.	Grammar department.	Primary department.	Whole school.	High school department.	Grammar department.	Primary department.	Whole school.	High school department.	Grammar department.	Primary department.	Whole school.
Lyons	176	30	28	95	153	25	25	80	130	25	23	75	123
Mackinaw City	201	23	68	55	146	20	57	32	111	15	50	30	95
Mancelona	561	48	49	434	531	41	34	339	414	33	33	278	344
Manchester	376	78	102	157	337	68	93	140	301	66	90	133	289
Manton	319	43	96	168	307	39	80	126	245	32	58	84	174
Maple Rapids	185	28	65	87	180	24	56	44	124	23	53	43	119
Marcellus	260	69	71	139	279	60	60	98	218	57	58	91	206
Marion	245	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Marlette	339	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mayville	274	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
McBain	279	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
McBride	161	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mecosta	156	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Memphis	201	55	56	81	192	50	50	65	165	41	48	60	149
Mendon	206	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Merrill	126	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Metamora	97	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Middleville	225	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Milan	308	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Milford	271	71	94	99	264	65	88	91	244	60	87	90	237
Millington	226	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Minden	196	.....	68	62	130	.....	68	62	130	...	50	61	111
Montague	323	34	93	108	235	30	90	102	222	28	85	95	208
Montrose	101	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Morenci	277	54	85	116	255	50	79	106	235	44	66	85	195
Morley	143	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Morrice	143	51	22	72	145	48	20	65	133	37	16	54	107
Mt. Morris	161	30	55	55	140	25	50	48	123	25	38	38	101
Munising	681	45	162	429	636	31	125	308	464	28	103	261	392
Muir	150	24	41	77	142	23	38	67	128	18	34	67	119
Muskegon Heights	314	27	50	157	234	25	47	139	211	24	45	126	195
Nashville	318	70	124	117	311	64	103	95	262	62	100	90	252
Nanbinway	34	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Newaygo	427	63	89	235	387	45	70	169	284	41	70	149	260
New Baltimore	271	36	38	39	113	29	32	33	94	27	29	31	87
Newberry	534	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
New Boston	124	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
New Buffalo	203	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
New Haven	165	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
North Adams	125	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
North Branch	230	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Northville	431	72	112	240	424	60	98	206	364	53	83	169	305
Oakley	92	.....	48	38	86	.....	42	34	76	.....	33	27	60
Olivet	242	71	83	102	256	61	69	89	219	53	60	73	186
Onekama	179	33	40	44	117	29	28	40	97	25	27	32	84
Onaway	481	25	113	241	379	.....	.....	.....	210	20	40	50	110
Ontonagon	469	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Orion	251	30	55	85	170	27	47	75	149	23	42	59	124
Oscoda	468	40	114	177	331	38	113	168	319	38	103	150	291
Otisville	141	45	39	51	135	.....	.....	.....	.....	30	23	28	81
Otsego	603	98	156	235	489	87	135	207	429	83	129	190	402
Otter Lake	89	.....	54	36	90	.....	49	32	81	.....	39	28	67
Ovid	396	98	135	174	407	79	121	137	337	70	113	128	311
Oxford	286	65	77	117	259	57	69	98	224	53	60	81	194
Parma	150	38	41	64	143	35	38	44	117	32	35	41	108

* Where a blank occurs the item was not reported.
† Superintendent included.

TABLE XVII.—CONTINUED.

Number of regular teachers employed.								Portion of superintendent's time devoted to supervision.	Number of special teachers.	Does school give special instruction in—			
H. S. departm't.		Grammar departm't.		Primary departm't.		†Whole school.							
Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.			Vocal music?	Drawing?	Penmanship?	Manual training?
1	.....	.....	1	.....	2	1	3	.....	.....	.....	.....	.....	.....
.8	.....	.....	2	.....	1	1	3	1-6	.....	no	no	yes	no
.....	1	.....	1	1	6	2	8	all	.....	no	yes	yes	no
.9	2	.....	2	.....	4	1	8	1-8	.....	no	no	no	no
.8	1	.....	2	.....	4	1	7	1-6	.....	no	no	no	no
.8	.....	1	1	.....	1	2	2	1-6	.....	no	no	no	no
.8	2	1	1	.....	2	2	5	1-4	.....	no	no	no	no
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1	1	.....	1	.....	1	1	3	.....	.....	.....	.....	yes	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.9	1	1	1	.....	3	2	5	1-8	.....	no	no	no	no
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	1	.....	.....	1	1	1	.....	.....	no	no	no	no
.8	1	1	1	.....	5	2	7	1-4	1	yes	yes	.....	.....
1	1.5	.....	2	.....	2.5	1	6	.....	.....	no	yes	yes	no
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1	.....	1	.....	.....	2	2	2	.....	.....	no	no	no	no
1	.....	.....	1	.....	1	1	2	.....	.....	no	no	no	no
2	.....	1	4	.....	6	3	10	.....	.....	no	no	no	no
1	.....	1	.....	.....	2	2	2	.....	.....	no	no	no	no
1	1	.....	1	.....	2	1	4	1-15	.....	no	yes	yes	no
1.8	2	.....	2	.....	3	2	7	1-5	.....	no	no	no	no
1	1	.....	2	.....	3	1	6	1-15	.....	no	no	no	no
1	1	.....	1	.....	1	1	3	1-12	.....	no	no	no	no
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.8	2	.....	3	.....	4	1	9	1-4	.....	yes	no	no	no
.....	.....	1	.....	.....	1	1	1	.....	.....	.....	.....	.....	.....
1	.5	1	.5	.....	2	2	3	1-12	.....	yes	no	no	no
1	.....	.....	1	.....	1	1	2	.....	.....	.....	.....	.....	.....
.8	.....	.....	2	.....	3	1	5	1-6	.....	no	yes	yes	no
1	.....	.....	1	.....	2	1	3	.....	.....	no	.....	.....	.....
.....	1.6	.....	2	.....	3	.....	7	1-3	.....	no	no	no	no
1	.....	1	.....	.....	1	2	1	.....	.....	.....	.....	.....	.....
.7	3	.....	4	.....	6	1	13	2-7	1	yes	no	no	no
.....	.....	1	.....	.....	1	1	1	.....	.....	.....	.....	.....	.....
1.8	1	.....	2	.....	4	2	7	1-6	.....	no	no	no	no
.8	2	.....	2	.....	2	1	6	1 4	1	yes	no	no	no
1.2	.....	.7	.7	.....	1.3	2	2	1-10	.....	no	no	no	no

*TABLE XVII.—CONTINUED.

Incorporated villages.	School population from inspector's report.	Enrollment.				Average number belonging.				Average daily attendance.			
		High school department.	Grammar department.	Primary department.	Whole school.	High school department.	Grammar department.	Primary department.	Whole school.	High school department.	Grammar department.	Primary department.	Whole school.
Paw Paw	384	110	105	125	340	103	93	105	301	100	94	110	304
Pentwater	312	37	86	182	305	27	74	135	236	26	69	128	223
Perrinton	91												
Perry	208	68	81	56	205	68	81	56	205	52	58	43	153
Petersburg	209	30	56	97	183	26	50	88	164	25	48	87	160
Pewamo	146												
Pierson	118												
Pinckney	130	47	20	73	140	34	15	65	114	30	12	58	100
Pinconning	366	50	60	120	230	45	48	100	193	43	43	80	166
Plainwell	343	116	104	208	488	98	76	116	290	93	68	104	265
Plymouth	464	71	122	247	440	62	95	200	357	60	92	177	329
Port Austin	279	27	35	146	208	18	26	113	157	16	20	100	136
Port Hope	225	28	39	34	101								
Portland	496	133	161	226	520	109	113	132	354	98	110	120	328
Port Sanilac	120	45	36	37	118				116				
Potterville	149	45	42	67	154	37	37	56	130	33	31	50	114
Quincy	307	72	45	152	269	65	43	142	250	60	44	136	240
Reading	252	69	99	112	280	55	78	79	212	55	78	79	212
Reed City	704	99	230	403	732	86	143	243	472	83	135	223	441
Reese	205												
Richland	121	53	26	40	119	44	22	34	100	43	23	37	103
Richmond	217	54	76	90	220	46	63	76	185	42	60	70	172
River Rouge	762												
Rochester	383	54	118	140	312	54	100	106	260	45	91	94	230
Rockford	211												
Rogers	327												
Romeo	487	100	145	170	415	96	119	111	326	94	118	100	312
Roscommon	256												
Royal Oak	227	58	70	72	210	54	64	72	190	48	56	50	154
Saline	239	59	71	95	225	50	53	66	169	47	50	64	161
Sand Lake	112												
Sanilac Centre	250												
Saranac	314	49	112	145	306	45	99	129	273	44	90	90	194
Saugatuck	253	50	68	91	209	57	83	91	231	50	78	80	208
Schoolcraft	195	34	60	108	202	32	52	89	173	28	43	91	162
Scottville	238												
Sebewaing	524												
Shelby	365	63	88	177	328	43	61	136	240	49	61	133	243
Shepherd	242												
Sheridan	168												
Sherman	163	37	36	49	122					28	28	42	98
Sherwood	125	23	55	45	123	16	47	35	98	13	42	30	85
South Frankfort	202	20	41	105	166	16	33	85	134	16	33	85	134
South Haven	1,047	190	259	504	953	151	217	353	721	145	217	323	685
South Lyons	178												
Sparta	379												
Spring Lake	304	48	35	95	178	40	32	90	162	37	29	86	152
Springport	147	51	42	58	151	48	39	54	141	46	39	50	135
Stambaugh	456	31	57	217	305	15	30	170	215	15	24	117	156
Standish	467												
St. Charles	547	54	133	514	701	42	91	179	312	39	71	155	265
St. Johns	873	176	293	417	886	141	201	334	676	136	192	328	656
Stephenson	1,173												
Stevensville	281	33	32	105	170	30	28	88	146	28	23	75	126

* Where a blank occurs the item was not reported.
† Superintendent included.

TABLE XVII.—CONTINUED.

Number of regular teachers employed.								Portion of superintendent's time devoted to supervision.	Number of special teachers.	Does school give special instruction in—			
H. S. departm't.		Grammar departm't.		Primary departm't.		Whole school.							
Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.			Vocal music?	Drawing?	Penmanship?	Manual training?
1.8	2	1	1	.....	3	3	6	1-6	1	yes	.....	.....	.....
.9	1.5	.....	2	.....	3.5	1	7	1-8	.....	no	no	no	no
1	1	.....	2	.....	1	1	4	1-12	.....	no	no	no	no
.8	1	.....	1	.....	2	1	4	1-4	.....	yes	no	yes	no
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1	.....	1	.....	.....	2	2	2	.....	.....	no	no	no	no
1.8	.....	.....	1	.....	2	2	3	1-5	.....	no	no	no	no
.8	3	.....	2.5	.....	2.5	1	8	1-5	1	yes	yes	yes	no
.9	2	.....	3	.....	4	1	9	1-7	1	yes	yes	yes	no
1	.....	.....	1	.....	2	1	3	.....	.....	no	no	no	no
1	.....	.....	1	.....	1	1	2	.....	.....	no	no	yes	no
1.4	3	.....	4	.....	4	2	11	4-7	.....	yes	yes	no	no
1	.....	.....	1	.....	1	1	2	.....	.....	.....	.....	.....	.....
1	1	.....	1	.....	1	1	3	.....	.....	.....	.....	.....	.....
.8	2	.....	1	.....	4	1	7	1-4	.....	no	no	yes	no
1	1	.....	2	.....	2	1	5	1-10	.....	no	yes	yes	no
.6	2	.....	4	.....	6	1	12	3-8	.....	no	no	no	no
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	2	.....	1	.....	1	.....	4	.....	.....	yes	yes	yes	no
.9	1	1	.....	.....	2	2	3	1-8	.....	no	no	no	no
1	1	.....	2	.....	3	1	6	1-20	.....	no	no	no	no
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
2	1.5	1	2	.....	2	3	5.5	1-10	1	no	yes	no	no
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1	1	.....	1	.....	1	1	3	.....	.....	no	no	no	no
1	2	.....	2	.....	2	1	6	1-10	1	yes	no	yes	no
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1	1	1	1	.....	3	2	5	.....	.....	.....	.....	.....	.....
1	.....	.....	2	.....	2	1	4	.....	1	no	no	.....	.....
1.6	1	.....	2	.....	3	2	6	3-8	.....	no	no	yes	no
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.8	1	.....	2.5	.....	2.5	1	6	1-6	.....	yes	no	yes	no
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	1	.....	1	.....	1	.....	3	.....	.....	no	.....	yes	.....
1	.....	1	.....	.....	2	2	2	.....	.....	no	no	yes	no
1	.....	.....	1	.....	2	1	3	.....	.....	no	no	no	no
.4	4	.....	5	.....	7	1	16	4-7	.....	no	yes	yes	no
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.9	1	.....	1	.....	3	1	5	1-10	.....	no	no	yes	no
1	1	1	.....	.....	2	2	3	1-12	.....	no	no	no	no
.9	.....	.....	1	1	7	2	8	1-10	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.8	1	.....	2	.....	4	1	7	1-4	.....	no	yes	yes	no
2.3	3	2	3	.....	8	5	14	2-3	1	yes	yes	no	no
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1	.....	.....	1	.....	2	1	3	1-8	.....	.....	.....	.....	.....

*TABLE XVII.—CONTINUED.

Incorporated villages.	School population from inspector's report.	Enrollment.				Average number belonging.				Average daily attendance.			
		High school department.	Grammar department.	Primary department.	Whole school.	High school department.	Grammar department.	Primary department.	Whole school.	High school department.	Grammar department.	Primary department.	Whole school.
Stockbridge	203	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sunfield	160	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sutton's Bay	242	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Tecumseh	586	144	213	246	603	122	181	183	486	118	174	171	463
Tekonsha	180	39	57	67	163	34	53	62	149	30	42	49	121
Thompsonville	345	41	33	257	331	35	28	200	263	35	28	200	263
Three Oaks	403	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Trenton	415	64	73	184	321	52	58	136	246	48	53	108	209
Tustin	137	36	54	61	151	25	41	34	100	23	33	34	90
Ubly	182	58	61	72	191	43	47	35	125	36	40	31	107
Union City	370	96	111	182	389	74	89	140	303	71	83	133	287
Unionville	227	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Utica	255	44	63	85	192	38	56	66	160	36	50	58	144
Vandalia	145	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Vassar	524	99	148	270	517	73	110	162	345	68	100	147	315
Vermontville	204	65	52	93	210	62	46	85	193	61	40	74	175
Vernon	150	42	46	48	136	42	46	48	136	33	40	41	114
Vicksburg	259	78	82	92	252	66	70	80	216	63	69	67	199
Wakefield	494	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Warren	118	.....	29	49	78	.....	.....	.....	.....	.....	19	45	64
Watervliet	363	54	90	147	291	46	85	140	271	44	73	128	245
Wayland	162	74	58	66	198	62	55	53	170	52	42	40	134
Wayne	351	76	123	169	368	70	111	148	329	59	99	115	273
Webberville	138	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
West Branch	532	.....	.....	.....	.....	.....	.....			.....	.....	.....	.....
Westphalia	262	.....	.....	.....	.....	.....	.....			.....	.....	.....	.....
White Cloud	190	20	91	72	183	17	76	45	138	16	71	41	128
Whitehall	534	40	193	152	385	35	191	93	319	34	141	134	309
White Pigeon	186	54	40	70	164	48	36	65	149	45	33	60	138
Williamston	344	83	96	156	335	65	76	117	258	62	78	109	249
Woodland	116	37	39	37	113	37	38	35	110	35	36	29	100
Yale	410	75	95	183	353	67	92	141	290	63	78	127	268
Zeeland	580	36	166	216	418	32	147	199	378	31	136	175	342

* Where a blank occurs the item was not reported.
† Superintendent included.

TABLE XVII.—CONTINUED.

Number of regular teachers employed.								Portion of superintendent's time devoted to supervision.	Number of special teachers.	Does school give special instruction in—			
H. S. departm't.		Grammar departm't.		Primary departm't.		†Whole school.							
Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.			Vocal music?	Drawing?	Penmanship?	Manual training?
.5	4	.....	4	.....	5	1	13	1-2	1	yes	no	no	no
1	.....	1	1	.....	1	2	2	.....	.....	no	no	no	no
.9	1	.....	1	.....	3	1	5	1-10	.....	yes	yes	yes	no
1	1	.....	1	.....	2	1	4	1-12	.....	.....	yes	yes	.....
1	.....	.....	1	.....	1	1	2	.....	.....	no	no	yes	no
1	.....	.....	1	.....	1	1	2	.....	.....	no	no	no	no
1.8	2	.....	3	.....	4	2	9	1-4	1	yes	yes	yes	no
1	.6	.....	1.4	.....	2	1	4	.....	.....	no	no	no	no
1.8	2	.....	3	.....	5	2	10	1-4	.....	no	yes	yes	no
1	2	.....	1	.....	2	1	5	1-36	.....	no	no	no	no
1	.....	.....	2	.....	1	1	3	.....	.....	no	no	no	no
1.7	1	1	1	.....	2	3	4	.....	.....	yes	no	no	no
.....	.....	1	.....	.....	1	1	1	.....	.....	no	no	no	no
.8	1	.....	2	.....	3	1	6	2-9	.....	.....	.....	.....	.....
1.4	.....	.3	1	.3	1	2	2	.....	.....	no	yes	yes	no
.6	2	.....	3	.....	3	1	8	3-8	1	yes	no	no	no
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.8	.....	.....	2	.....	1	1	3	1-6	.....	no	no	no	no
.8	1	.....	4	.....	4	1	9	1-4	.....	.....	.....	.....	.....
.8	1	.....	2	.....	2	1	5	1-4	.....	no	no	yes	no
.8	3	1	1	.....	3	2	7	1-4	.....	no	no	no	no
1	.....	.....	1	.....	1	1	2	.....	.....	no	no	no	no
1	1	.....	2	.....	3	1	6	1-10	.....	no	yes	yes	no
1	.....	.....	4	.....	4	1	8	1-12	1	no	yes	no	no

*TABLE XVII.—CONTINUED.

Miscellaneous statistics of city schools as reported by superintendents for the school year 1900–1901.

Incorporated cities.	Number of graduates.	Average number pupils to each teacher.				Number of non-resident pupils.				Average age of class.			Number studying—				Has school kindergarten below primary grade?	Portion of time in first primary devoted to kindergarten work.	Number of U. S. flags.
		High school department.	Grammar department.	Primary department.	Whole school.	High school department.	Grammar department.	Primary department.	Whole school.	Graduated.	Promoted to high school.	Promoted to grammar department.	Latin.	Greek.	French.	German.			
Adrian	39	30	34	40	36	64	5	1	70	18.3	14.6	10.9	165	8	22	79	.....	1-4	2
Albion	34	27	37	33	33	.....	4	43	47	.....	.....	.....	63	.....	.....	29	no	1-3	5
Alpena	13	17	40	47	41	6	15	21	40	18	14.1	10.2	30	.....	.....	20	no	1-5	8
Ann Arbor	65	25	37	37	32	229	.....	.....	229	18.5	14.6	10.5	329	32	37	95	no	1-6	7
Au Sable	11	39	39	64	51	2	1	2	5	17.5	.....	.....	42	.....	.....	27	yes	1-2	2
Battle Creek	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bay City	39	25	32	35	32	29	15	15	59	18	15	12	188	16	171	105	no	none	11
Belding	10	20	58	38	37	22	2	.....	24	18.5	14	11	37	.....	.....	27	yes	1-3	1
Benton Harbor	18	29	32	37	34	35	10	4	49	17	13	8	60	7	.....	30	no	1-6	.....
Bessemer	6	20	46	44	41	.....	.....	.....	.....	18.6	11.5	7.4	25	.....	.....	11	yes	none	4
Big Rapids	27	23	43	39	37	.....	.....	.....	19	18	.....	.....	65	.....	.....	25	yes	1-2	4
Cadillac	20	27	45	47	43	.....	.....	.....	.....	17	.....	.....	73	2	.....	33	yes	4-5	3
Charlotte	19	26	32	33	31	32	14	1	47	19	14.4	10	38	10	.....	20	3 mo.	2-5	6
Cheboygan	8	20	44	47	42	6	2	.....	8	18.4	.....	.....	20	.....	.....	.....	no	none	5
Clare	8	20	42	54	41	6	2	.....	8	18.7	14	10.7	25	.....	.....	7	no	.....	1
Coldwater	12	23	31	42	34	.....	.....	.....	46	18.6	15.5	11.3	52	5	.....	33	yes	.....	4
Corunna	13	26	34	35	32	27	13	3	43	18	15	11	40	.....	.....	15	no	1-4	1
Crystal Falls	7	25	42	50	45	.....	.....	.....	.....	18	14	10	12	.....	.....	17	yes	none	5
Detroit	219	20	30	42	34	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	yes	.....	60
Dowagiac	16	29	38	49	42	48	12	11	71	18.5	13.6	9.5	62	4	.....	23	yes	.....	4
East Tawas	9	30	53	47	46	.....	.....	.....	.....	17	.....	.....	.....	.....	.....	.....	yes	1-4	3
Eaton Rapids	20	30	42	40	37	62	5	1	68	19	14	10	34	.....	.....	29	no	1-3	1
Escanaba	16	25	43	46	42	1	1	.....	2	18	15	10	100	.....	.....	35	no	1-3	4
Flint	39	28	37	36	34	76	11	9	96	18	14	10	126	11	18	38	no	1-10	7
Gladstone	2	24	35	41	38	.....	.....	.....	.....	17	14	10	16	.....	4	1	yes	none	1
Gladwin	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Grand Haven	16	19	49	33	37	10	3	2	15	18.5	14.2	11	50	.....	.....	.....	yes	none	2
Grand Ledge, N. S.	1	6	58	49	34	1	1	.....	2	18	14	10	.....	.....	.....	.....	no	1-4	1
Grand Ledge, S. S.	7	23	44	50	39	30	3	2	35	19	16	12	19	.....	.....	15	no	1-3	1
Grand Rapids	134	32	33	37	35	67	12	19	98	18.4	14.6	11.2	523	15	76	376	yes	none	34

Greenville	.....				...	.....	.....	..		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Harrison	2	29	43	34	35	3	2	..	5	18	12	7	.....	.....	.....	.....	yes	1-3	1
Hastings	9	26	39	32	33	23	2	..	25	19	15	11	72	.....	.....	23	no	.....	4
Hilladale	.....					.....	.....	..		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Holland	26	28	46	47	44	20	16	7	43	17	14.1	9.6	50	.....	.....	.....	no	none	5
Hudson	6	17	15	26	20	32	2	2	36	18	14.2	10.5	40	.....	.....	25	yes	1-5	2
Ionia	10	19	26	32	26	.....	.....	..	127	.....	.....	.....	104	6	7	38	yes	1-4	4
Iron Mountain	8	21	41	45	41	2	.....	..	2	19	14.5	10.5	46	.....	.....	21	no	1-5	6
Ironwood	15	40	38	39	36	.....	.....	..		18	14	10	42	.....	.....	56	yes	none	7
Ishpeming	.....				.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Jackson	.....	28	34	39	36	24	8	4	36	.....	15.4	10.9	240	11	7	93	no	1-4	16
Kalamazoo	41	27	38	43	38	26	14	5	45	18.6	.....	.....	269	10	15	46	yes	1-4	10
Lansing	60	38	33	40	37	30	8	2	40	.....	.....	.....	200	20	.....	175	no	1-12	13
Lapeer	20	18	37	28	26	34	4	.....	38	18	15	.....	35	7	3	29	no	.....	1
Ludington	30	26	36	41	37	28	.....	.....	28	18	14.2	10.5	71	10	.. ...	36	yes	1-2	5
Mackinac Island	.....				.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Manistee	46	20	36	36	34	26	13	15	54	18.5	14	10.5	86	.....	12	31	no	1-4	6
Manistique	2	16	41	37	36	1	2	5	8	16	14	10	26	.....	.....	2	yes	.....	3
Marine City	7	21	35	50	40	7	8	5	20	18	15	10.5	19	.....	.....	21	no	.....	3
Marquette	12	21	50	38	39	.....	.....	.....	.....	.....	.....	.....	50	.....	17	20	yes	1-4	9
Marshall	28	25	34	30	30	36	5	.....	41	17	14	10	104	12	.....	47	no	none	.....
Mason	17	26	36	34	32	55	18	... ..	73	19.3	14.8	10	41	5	.....	20	yes	1-4	2
Menominee	13	29	39	49	44	9	.....	1	10	17.5	.....	.....	135	4	.....	45	yes	none	4
Midland	9	28	42	42	39	12	.....	.....	12	18	14	10	32	.....	.....	20	no	1-2	4
Monroe	16	21	40	46	35	48	17	8	73	19.	14	11	56	8	.....	20	no	1-3	4
Mt. Clemens	13	29	33	40	35	27	3	6	36		.....	.....	30	.....	.....	24	yes	none	4
Mt. Pleasant	9	23	32	31	30	.....	.....	.....	.....		.....	.....	55	.....	.....	16	.....	1-4	3
Muskegon	.....		..		.....	.....	.....	.....	.....		.....	.....	.....	.....	.....	.....	.....	.....	.....
Negaunee	10	16	51	39	37	.....	.....	.....		18	14	10.5	17	.....	5	9	yes	1-5	1
Niles	16	35	45	38	40	28	9	2	39	18	.....	.....	95	.....	.....	45	no	1-4	6
North Muskegon	9	19	31	42	31	.....	1	.....		14.2	.....	. ....	.....	.....	.....	.....	no	.....	3
Norway	.....				.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Owosso	31	37	36	41	38	20	2	3	25	18.7	.....	.....	105	.....	.....	50	no	1-2	.....
Petoskey	9	22	37	42	36	13	24	.....	37	19.2	.....	.....	29	.....	.....	24	no	1-5	3
Pontiac	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Port Huron	32	27	45	41	41	6	.....	3	9	18	14	10	110	9	26	50	no	1-4	15
Saginaw	.....				.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Saginaw, W. S.	27	24	30	38	33	11	8	3	22	18	.....	.....	132	5	43	1,031	no	1-5	12
Sault Ste. Marie	13	23	47	45	42	.....	.....	.....		18.5	13.7	9	40	.....	24	30	yes	1-3	6
St. Clair	14	35	48	39	41	10	4	.....	14	18	14	10	34	.....	.....	9	no	1-3	4
St. Ignace	5	23	37	43	37	.....	.....	.....		16.5	.....	10.5	7	.....	.....	.....	yes	.....	3
St. Joseph	..				.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
St. Louis	18	25	30	41	32	.....	.....	.....	33	18	.....	.....	42	.....	.....	13	yes	.....	2
Stanton	9	30	30	37	34	10	2	.....	12	18	15	.....	20	.....	.....	.....	yes	.....	1
Sturgis	10	19	28	41	31	12	3	2	17	17.3	14.5	10.5	28	.....	.....	9	yes	1-3	.....

* Where a blank occurs the item was not reported.

*TABLE XVII.—CONTINUED.

Incorporated cities.	Number of graduates.	Average number pupils to each teacher.				Number of non-resident pupils.				Average age of class.			Number studying—				Has school kindergarten below primary grade?	Portion of time in first primary devoted to kindergarten work?	Number of U. S. flags.
		High school department.	Grammar department.	Primary department.	Whole school.	High school department.	Grammar department.	Primary department.	Whole school.	Graduated.	Promoted to high school.	Promoted to grammar department.	Latin.	Greek.	French.	German.			
Tawas City	2	25	44	39	40	4	1	3	8	18	.....	.....	.....	.....	.....	.....	no	1-6	1
Three Rivers	16	19	30	33	28	15	2	1	18	16.7	14	10	67	.....	3	16	no	1-3	2
Traverse City	20	25	56	31	40	.....	.....	.....	112	19	.....	.....	60	.....	.....	55	no	1-2	5
West Bay City	12	19	25	39	33	8	4	1	13	17	.....	.....	96	.....	.....	30	no	.....	8
Wyandotte	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Ypsilanti	30	31	37	38	36	60	7	2	69	19	15	11	104	10	7	61	no	1-3	4

* Where a blank occurs the item was not reported.

*TABLE XVII.—CONTINUED.

Incorporated villages.	Number of graduates.	Average number pupils to each teacher.				Number of non-resident pupils.				Average age of class.			Number studying—				Has school kindergarten below primary grade?	Portion of time in first primary devoted to kindergarten work?	Number of U. S. flags.
		High school department.	Grammar department.	Primary department.	Whole school.	High school department.	Grammar department.	Primary department.	Whole school.	Graduated.	Promoted to high school.	Promoted to grammar department.	Latin.	Greek.	French.	German.			
Addison	5	53	37	37	41	29	3	.....	32	16.8	.....	.....	.....	.....	.....	.....	yes	1-4	1
Algonac	11	22	28	27	48	2	.....	.....	2	18	.....	.....	.....	.....	7	.....	no	1-3	1
Allegan	19	34	38	44	40	.....	.....	.....	32	18.1	.....	.....	74	.....	.....	48	no	1-5	1
Alma	10	30	35	54	41	26	17	.....	43	18	14	11	37	.....	2	25	yes	.....	2
Almont	6	31	30	46	35	22	5	.....	27	18.3	14	10.5	14	.....	.....	.....	no	1-3	1
Armada	.....	33	30	51	40	36	2	2	40	.....	.....	.....	21	.....	.....	.....	no	1-4	1
Ashley	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Athens	7	35	34	47	41	10	1	.....	11	17	.....	.....	7	.....	.....	.....	yes	1-5	1
Atlanta	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Attica	1	32	.....	28	30	3	.....	.....	3	15	.....	11	.....	.....	.....	.....	no	.....	1
Augusta	.....	30	29	38	25	17	.....	.....	17	16	.....	.....	6	.....	.....	.....	no	.....	1
Bad Axe	8	35	33	53	41	19	2	.....	21	18	14	10	18	.....	.....	19	no	1-2	1
Baldwin	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bancroft	5	31	36	26	31	13	11	2	26	21	14	10	5	.....	.....	.....	.....	.....	.....
Bangor	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Baraga	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bear Lake	.....	43	21	60	41	3	1	.....	4	.....	.....	.....	2	.....	.....	.....	no	.....	1
Beaverton	.....	25	65	47	41	.....	.....	.....	3	16	.....	.....	.....	.....	.....	.....	no	.....	1
Bellaire	6	18	52	46	41	8	1	.....	9	16.8	13.7	9.4	12	.....	.....	.....	no	1-4	1
Bellevue	14	26	30	33	30	29	2	1	32	18.3	13.4	10.4	49	.....	.....	18	no	1-6	1
Benzonia	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Berrien Springs	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Birmingham	12	31	44	49	41	42	16	5	63	18.6	15.3	11.6	60	.....	.....	25	no	.....	1
Blissfield E. S.	2	25	38	45	36	16	6	.....	22	18	14	10	6	.....	.....	.....	no	.....	1
Blissfield W. S.	1	26	37	33	32	8	2	.....	10	19	12	8	10	.....	.....	.....	no	.....	1
Bloomingdale	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Boardman	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Boyne City	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Boyne Falls	.....	23	23	49	36	3	2	3	8	16	14	11	2	.....	.....	.....	yes	1-6	1
Breedsville	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

* Where a blank occurs the item was not reported.

*TABLE XVII.—CONTINUED.

Incorporated villages.	Number of graduates.	Average number pupils to each teacher.				Number of non-resident pupils.				Average age of class.			Number studying—				Has school kindergarten below primary grade?	Portion of time in first primary devoted to kindergarten work.	Number of U. S. flags.
		High school department.	Grammar department.	Primary department.	Whole school.	High school department.	Grammar department.	Primary department.	Whole school	Graduated.	Promoted to high school.	Promoted to grammar department.	Latin.	Greek.	French.	German.			
Brighton	.....	26	28	38	31	18	1	.....	19	16	12	8	35	.....	.....	14	no	1-10	1
Britton	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bronson	5	26	53	49	42	20	2	1	23	18	13.5	9.3	.....	.....	.....	.....	no	1-3	1
Brooklyn	15	31	35	36	34	29	6	5	40	18.6	14	11	15	.....	.....	.....	no	1-15	1
Brown City	3	37	50	42	43	11	3	.....	14	17	.....	.....	.....	.....	.....	.....	no	.....	1
Buchanan	16	16	32	42	30	.....	.....	.....	.....	17	14	9	23	.....	.....	18	no	.....	2
Burlington	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Burr Oak	13	18	21	30	21	27	4	3	34	18	.....	.....	19	.....	.....	.....	yes	.....	1
Byron	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Caledonia	8	40	30	37	34	20	2	1	23	16	12	11	.....	.....	.....	.....	no	1-2	1
Camden	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Capac	5	38	32	58	32	.....	.....	.....	25	18	.....	.....	.....	.....	.....	.....	no	1-4	1
Caro	14	32	38	45	39	46	2	.....	48	18.1	14.3	9.6	42	.....	.....	18	no	1-4	2
Carson City	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Carsonville	2	.....	36	68	47	.....	5	.....	5	.....	14	10	.....	.....	.....	.....	no	.....	1
Caseville	9	30	46	60	45	.....	.....	.....	11	18	14	10	9	.....	.....	.....	no	1-3	1
Casnovia	1	21	.....	30	24	21	.....	.....	21	.....	.....	.....	2	.....	.....	.....	no	.....	1
Cass City	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cassopolis	8	21	35	44	33	.....	.....	.....	32	17	30	.....	.....	4	.....	.....	no	1-6	1
Cedar Springs	5	31	33	41	36	31	3	.....	34	17.6	14.5	10	13	.....	.....	6	no	1-12	1
Central Lake	.....	40	59	53	55	4	.....	.....	4	.....	.....	.....	.....	.....	.....	.....	yes	1-2	1
Centreville	7	17	31	30	23	18	.....	.....	18	18	.....	.....	15	.....	.....	7	no	1-4	1
Charlevoix	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Chelsea	12	24	28	41	28	40	2	4	46	17.5	13.5	10	24	7	.....	24	no	1-6	1
Chesaning	1	20	35	37	30	22	4	2	28	19	.....	.....	15	.....	.....	16	no	1-4	1
Clarkston	7	26	48	35	34	13	.....	.....	13	19	14	10	7	.....	.....	.....	no	1-4	1
Clayton	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Clifford	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Climax	8	31	25	30	32	12	.....	1	13	17.5	.....	.....	12	.....	.....	.....	no	1-2	1
Clinton	13	38	40	65	40	20	4	1	25	17	.....	.....	8	.....	.....	10	no	1-6	1
Clio	10	26	31	35	30	22	9	.....	31	.....	.....	.....	30	.....	.....	14	no	.....	1
Coleman	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Coloma	4	29	44	38	38	5	6	2	13	17	15	.....	.....	.....	.....	.....	no	.....	1

Columbiaville	5	25	30	38	29	19	5		24	18			5				no		1
Concord A	9	20	37	25	25	19	1	1	21	17.4	14.1	9	16				no	1-3	1
Constantine	13	17	38	41	30	23	2		25	18	12	8	40			15	yes	1-2	1
Coopersville	8	22	44	42	34	10		1	11	16	14	10					no	1-2	
Copemish																			
Croswell																			
Croton																			
Custer																			
Dansville	7	25	26	15	20	12	2	1	15	17							no	1-3	1
Davison	1	36	29	41	38	22	8	3	33	16		10.7	20				no	1-10	1
Dearborn	2	16	31	77	41	5	1		6	18							no	1-6	1
Decatur	14	25	40	44	36	33	4		37	18.5			35			20	yes	1-2	1
Deckerville																			
Deerfield																			
Delray																			
Detour																			
Dexter	3	14	36	56	32	20	1	4	26	18.3	13.	9	14			9	no		1
Douglas		22	40	45	36						12	10					no		1
Dryden																			
Dundee		28	36	35	34	12	4	2	18	18.7	14	9.6	18				no	1-6	1
Durand		14	33	49	35	10	8	4	22		14	10	10			8	yes	1-2	2
Eagle																			
East Grand Rapids			29	31	30						10	9					no		1
East Jordan	2	22	43	41	38	8	2		10	17	14	11	7			20	no	1-2	1
Eau Claire			31	55	43				2		15						no		1
Edmore																			
Elkton	3	22	45	45	39		8	1	9								no		1
Elsie	8	79	34	55	51	26	4	2	32	16.6	12.5	9.2					no		1
Emmett																			
Empire		44	42	39	42												no		1
Essexville			48	42	45		2	1	3		14.8						no	1-4	1
Evart	10	21	33	50	39	6	4	2	12	17	14	10	12				yes		1
Farmington	6	18	28	54	41	9	4	1	14	17							no		1
Farwell	7	10	75	65	53				15	17	14	10					no		1
Fennville		38	43	40	40	51	2		53	19							no	1-4	
Fenton	12	32	48	47	44	19	9	6	34	18	14	10	39			30	no	1-5	3
Fife Lake	8	49	66	49	41	8	2		10	15.5							yes		1
Flushing	4	24	35	41	33	16	6	4	26	16	12	8	25				no		
Forestville																			
Fowler																			
Fowlerville																			
Frankfort	7	27	29	38	33	4	2	3	9	18							no	1-3	1
Fraser																			
Fremont	11	27	36	36	34	20	1	1	22	17	15	13	6				yes		1
Fruitport																			

* Where a blank occurs the item was not reported.

*TABLE XVII.—CONTINUED.

Incorporated villages.	Number of graduates.	Average number pupils to each teacher.				Number of non-resident pupils.				Average age of class.			Number studying—				Has school kindergarten below primary grade?	Portion of time in first primary devoted to kindergarten work?	Number of U. S. flags.
		High school department.	Grammar department.	Primary department.	Whole school.	High school department.	Grammar department.	Primary department.	Whole school.	Graduated.	Promoted to high school.	Promoted to grammar department.	Latin.	Greek.	French.	German.			
Gagetown			28	35	31	11			11		13		2				no		1
Gaines	5	26	33	36	33	[illegible]	8	[illegible]	17	15.6	14.2	10.1					no	1-4	1
Galesburg	10	23	29	51	31	27	5	3	35	18	14	10	19				no		1
Gallen																			
Garden																			
Gaylord	13	18	38	46	34	6	2	1	9	18	13	10	11			10	yes		1
Glenwood			32	86	59		1		1		16	10					no	1-6	1
Gobleville																			
Grandville																			
Grant																			
Grass Lake																			
Grosse Pointe																			
Grosse Pointe Farms			36	74	55						14	8					no		1
Hancock																			
Hanover		49	19	24	28				38	17							no	1-4	1
Harbor Beach																			
Harbor Springs																			
Harrietta																			
Harrisville	3	33	30	42	37		1	2	3	17	14	11.3	6				no	1-3	1
Hart	9	29	45	57	43				22	18			15				no	1-3	1
Hartford																			
Hersey	3	26	31	43	33	7	1	3	11	16							no	1 18	1
Hesperia		25	40	40	34	12			12	17	14	10					no	1-6	1
Highland Park			23	31	27		6	1	7		15	10					no	1-5	1
Hillman																			
Holly		27	43	44	38	1	7	27	35	19	13	9	32			21	no	1-4	1
Homer																			
Houghton	5	16	27	30	27				33	18	15	11	20			20	yes		1
Howard City																			
Howell																			
Hubbardston	4	36	28	26	29	13	4		17	16.5	13.5	9					no		1
Imlay City		25	44	57	43	18			18	18			22			8	no	1-8	1
Iron River																			

Ithaca	11	33	47	46	43	22	1	2	45	18	13	9	50			35	yes		1
Jonesville	7	24	36	50	34	19	4	1	24	18	13	9	9			11	no	1 8	1
Kalkaska	10	19	36	34	31	6	4	4	14	17			9				yes	1-3	1
Kingsley																			
Kingston																			
Laingsburg																			
Lake Ann			24	51	37					12	8.7						no	1-3	1
Lake City	3	19	35	43	37		3	2	12	16							no		1
Lake Linden	20	23	23	35	29	2		1	3	19	15.5	9.5	41	7	25	15	yes	1-2	3
Lake Odessa	2	26	34	34	33	11	20	9	40	19		12					no	1-6	1
Lakeview	7	60	55	57	57	28	1		29	16	14	10	23				no	1-6	1
L'Anse	1	12	31	55	36					17			5				no	1-4	1
Laurium			27	46	42					15	12	8					no	1-12	
Lawrence																			
Lawton	6	23	38	44	34	21	6	3	30	18			18				no		1
Leonard																			
Le Roy	2	25	27	47	34	4	2		6	17	14	12					yes		1
Leslie	13	30	53	55	39	20	5	3	28	19	14	10					no	1-4	1
Lexington	3	17	54	26	28					17			5				no	1-4	
Lindon																			
Lisbon	5	16	32	40	29	3			3	18.6							no	1-2	1
Litchfield	6	22	37	29	28				33	18.6	14	11	5				no		1
Lowell	7	48	34	30	35	33	4	3	40	18	14	9	40			35	yes	1-2	3
Luther	7	34	32	56	42	6	5		11	17.4	15	10					yes	1-6	1
Lyons	4	25	25	40	32	12	2	3	17	16	15	11					no	1-2	
Mackinaw City	5	20	29	32	27					16	12	8					no	1-3	1
Mancelona	3	41	34	47	46	1	1	3	5	17.5	14.2	9.4					yes		2
Manchester	9	23	46	35	34	26	1	2	29	18	12	8.4	14			24	no		2
Manton	2	19	40	31	30	18	7		25	17	15	11					no	1-4	1
Maple Rapids	6	24	28	44	31	9			9	16.3	15	10	10				no		1
Marcellus	10	21	30	49	32	31	8	4	43	18	13	10	29			12	no	1-4	1
Marion																			
Mariette																			
Mayville																			
McBain																			
McBride																			
Mecosta																			
Memphis	5	25	50	65	42	16			16	17	15	11	13				no		1
Mendon																			
Merrill																			
Metamora																			
Middleville																			
Milan																			
Milford	8	34	44	30	35	18	6	1	25	18.5	14	10	28				no	1-4	1

• Where a blank occurs the item was not reported.

*TABLE XVII.—CONTINUED.

Incorporated villages.	Number of graduates.	Average number pupils to each teacher.				Number of non-resident pupils.				Average age of class.			Number studying—				Has school kindergarten below primary grade?	Portion of time in first primary devoted to kindergarten work.	Number of U. S. flags.
		High school department.	Grammar department.	Primary department.	Whole school.	High school department.	Grammar department.	Primary department.	Whole school.	Graduated.	Promoted to high school.	Promoted to grammar department	Latin.	Greek.	French.	German.			
Millington																			
Minden			68	62	65		3	3	6								no		
Montague	3	15	45	34	25	4	13	4	21	17	14	10					yes		1
Montrose																			
Morenci	9	20	40	42	34	16	3		19	18	14	9	38			10	no		1
Morley																			
Morrice	6	48	20	33	33	20	1	2	23	16.5	13.5	11							
Mt. Morris		25	50	48	41	8	2		10								no		1
Munising	4	14	25	51	36					18							no	1-2	4
Muir	2	23	38	33	32	9			9	16	13	9	6				no	1-4	1
Muskegon Heights	9	13	47	70	42	2		3	5		14	10					yes	1-2	1
Nashville	11	16	51	32	28	36	2	3	41	17			26			8	yes	1-3	1
Naubinway																			
Newaygo	4	22	35	56	41	10	1	1	12	18	13.5	12					no	1-9	1
New Baltimote		15	32	33	23	5			5								no	1-12	1
Newberry																			
New Boston																			
New Buffalo																			
New Haven																			
North Adams																			
North Branch																			
Northville	12	22	30	51	37	24	7	1	32	17.8	14.3	9	21			41	no	1-3	1
Oakley			42	34	38		5		5								no	1-4	1
Olivet		40	46	45	46	24	8	2	34		14	10	32				yes	1-3	
Onekama		29	28	40	32	4	2		6		11	8					no		1
Onaway		24			35	1	1		2				2				no		
Ontonagon																			
Orion	3	27	47	37	37	5	5	1	11	16.6	14.4	10.5	9				no		1
Oscoda	10	24	57	56	48	2			2	17	14	10					no	1-3	2
Otisville	6				55	15			15	16.5							no	1-2	1
Otsego	13	24	34	34	31	22			22	18	14	10	31			20	no	1-4	2
Otter Lake	8		49	31	40				8	16							no	1-2	1
Ovid	8	28	60	34	38	30	9	2	41	17.5	13.7	9.2	32			33	no	1-5	1

Oxford	8	20	35	49	33	13	.....	2	15	18	13	11	19	.	.	.....	.....	no	1-6	1
Parma	7	29	38	31	30	16	2	2	20	.....	.....			.	.	.....	.....	yes	1-4	1
Paw Paw	36	27	47	35	34	.....	.....	.....	45	18	.....		20	.	.	.....	30	no	1-3	1
Pentwater	3	11	37	38	30	3	1	3	7	19	14	10	16	.	.	.....	.....	yes	.....	1
Perrinton	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....			.	.	.....	.....	.....	.....	.....
Perry	3	34	40	56	41	25	3	1	29	17	13	9	48	.	.	.....	10	no	.....	1
Petersburg	5	18	56	44	34	6	3	.....	9	17	.....		11	.	.	.....	3	yes	1-2	1
Pewamo	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....			.	.	.....	.....	.....	.....	.....
Pierson	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....				.	.	.....	.....	.....	.....	.....
Pinckney	3	34	15	32	28	16	.....	3	19	19				.	.	.....	.....	no	.....	1
Pinconning	7	25	43	50	40	6	2	.....	8	17	13	10	3	.....	.....	.....	.....	no	.....	1
Plainwell	19	26	30	46	33	46	8	2	56	20	14	9.8	.....	.....	.....	.....	.....	no	1-4	1
Plymouth	10	21	32	50	31	28	6	2	36	19.5	13.8	11.4	25	.....	10	12	yes	.....	1	
Port Austin	2	18	26	57	39	.....	.....	.....	.....	17.5	14	9.1	7	.....	.....	.....	.....	no	1-15	.....
Port Hope	8	23	37	34	33	.....	.....	.....	.....	.....			.....	.....	.....	.....	.....	no	.....	1
Portland	17	25	28	33	28	36	6	.....	42	18.4	14.4	10.3	31	.....	.....	17	.....	no	.....	2
Port Sanilac	.....	.....	.....	.....	38	.....	.....	.....	2				.....	.....	.....	.....	.....	no	.....	1
Potterville	3	37	37	56	32	10	.....	.....	10	18			.....	.....	.....	.....	.....	no	1-10	1
Quincy	9	23	43	35	32	36	.....	.....	36	18			7	.....	.....	4	.....	no	1-3	1
Reading	3	28	39	40	35	29	6	4	39	18	.....		40	.....	.....	.....	.....	yes	1-6	1
Reed City	13	30	36	40	37	3	4	14	21	18.3	15	11	28	.....	.....	42	.....	yes	.....	2
Reese	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		.....	.....	.....	.....	.....	.....	.....	.....
Richland	1	22	22	34	25	17	2	3	22	16	12	9	8	.....	.....	1	.....	no	1-3	1
Richmond	1	23	63	38	37	21	7		28	18	13	10	11	.....	.....	.....	.....	no	1-2	1
River Rouge	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Rochester	6	27	50	35	37	10	6		16	17	14	12	13	.....	.....	.....	.....	yes	1-4	1
Rockford	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Rogers	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Romeo	20	27	39	56	38	32	.....		32	19.6	14.1	12.6	21	5	.....	18	.....	no	1-6	3
Roscommon	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Royal Oak	.....	27	64	72	47	6	1		7	14	11	.....	15	.....	.....	.....	.....	no	1-3	1
Saline	14	17	27	33	24	20	11	7	38	17	13.8	9 5	21	.....	.....	15	.....	no	.....	.....
Sand Lake	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sanilac Centre	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Saranac	14	22	48	42	39	22	21	10	53	17	14.5	11	.....	.....	.....	.....	.....	no	1-6	1
Saugatuck	15	57	41	45	46	16			17	18	.....	.....	6	.....	.....	.....	.....	no	.....	.....
Schoolcraft	4	12	26	30	23	8	5	3	16	19	15	11	6	.....	.....	8	.....	yes	.....	1
Scottville	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sebewaing	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Shelby	7	22	24	54	34	11			12	17	13	9	5	.....	.....	.....	.....	no	1-4	.....
Shepherd	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sheridan	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sherman	3	.....	.....	.....	.....	5			6		.....			.....	.....	.....	.....	no	.....	.....
Sherwood	1	16	20	17	24	7	6	3	16	16	14	.....	1	.....	.....	.....	.....	no	1-12	1
South Frankfort	.....	16	33	43	33	.....				17	.....	.....	.....	.....	.....	.....	.....	no	.....	1

* Where a blank occurs the item was not reported.

*TABLE XVII.—CONCLUDED.

Incorporated villages.	Number of graduates.	Average number pupils to each teacher.				Number of non resident pupils.				Average age of class.			Number studying—				Has school kindergarten below primary grade?	Portion of time in first primary devoted to kindergarten work.	Number of U. S. flags.
		High school department.	Grammar department.	Primary department.	Whole school.	High school department.	Grammar department.	Primary department.	Whole school.	Graduated.	Promoted to high school.	Promoted to grammar department.	Latin.	Greek.	French.	German.			
South Haven	13	34	43	50	44	88	28	5	121	19	14	10	35	.....	.....	17	no	1-3	2
South Lyon	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sparta	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Spring Lake	7	21	32	30	28	2	2	.....	4	16.5	.....	.....	.....	.....	.....	.....	no	1-10	2
Springport	3	24	39	27	28	15	.....	.....	15	17	.....	.....	18	.....	.....	.....	yes	1-2	1
Stambaugh	.....	15	30	21	21	.....	.....	.....	.....	.....	14	11	.....	.....	.....	.....	no	1-3	1
Standish	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
St. Charles	1	21	46	45	40	8	3	.....	11	18	.....	.....	42	.....	.....	.....	yes	1-4	1
St. Johns	21	27	40	42	37	55	3	1	59	19	14	.....	54	.....	.....	40	no	.....	3
Stephenson	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Stevensville	4	30	28	44	36	4	.....	.....	4	19	13	9	.....	.....	.....	.....	no	.....	1
Stockbridge	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sunfield	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sutton's Bay	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Tecumseh	17	24	45	37	36	39	3	2	44	19	15	11	68	.....	.....	36	no	1-8	2
Tekonsha	3	34	27	62	37	14	5	.....	19	17	.....	.....	.....	.....	.....	.....	no	.....	1
Thompsonville	2	18	28	66	44	2	.....	.....	2	19	13	.....	.....	.....	.....	.....	yes	1-3	1
Three Oaks	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Trenton	3	26	58	68	49	5	1	3	9	17	.....	.....	.....	.....	.....	.....	no	1-5	2
Tustin	1	25	41	34	33	7	6	1	14	17	13.5	8.8	.....	.....	.....	.....	no	.....	.....
Ubly	29	43	47	35	41	.....	.....	.....	...	17	14	10	.....	.....	.....	.....	no	1-10	1
Union City	11	20	30	35	28	41	7	9	57	19	.....	...	32	6	.....	15	no	1-3	1
Unionville	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	...	.....	.....	.....	.....	.....	.....	.....
Utica	10	22	43	33	32	19	.....	1	20	16	13	10	18	.....	.....	.....	no	.....	1
Vandalia	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	...	.....	.....	.....	.....	.....	.....	.....
Vassar	16	19	37	32	29	25	9	2	36	18	14	...	36	.....	.....	25	yes	.....	3
Vermontville	15	20	46	42	32	29	3	1	33	17.3	.....	...	35	.....	.....	19	yes	.....	.....
Vernon	9	42	23	48	34	8	5	.....	13	16	14	8	35	.....	.....	.....	no	.....	1
Vicksburg	10	24	35	40	32	19	4	1	24	18	.....	...	4	.....	.....	5	no	3-8	1
Wakefield	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	...	.....	.....	.....	.....	.....	.....	.....
Warren	.....	.....	.....	.....	.....	.....	5	1	6	.....	.....	...	.....	.....	.....	.....	no	.....	1
Watervliet	5	25	42	47	40	.....	.....	.....	13	18	14	10	11	.....	.....	.....	no	1-3	1
Wayland	13	44	42	41	42	50	5	.....	55	17	13	9	.....	.....	.....	.....	no	1-12	1

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*TABLE XVIII.

Financial statistics of city schools as reported by superintendents for the year 1900–1901.

Incorporated cities.	Amount paid superintendent.	Amount paid regular teachers.	Amount paid spec'l teachers.	Total amount paid for instruction.	Cost of education per capita in—											
					High school.			Grammar department.			Primary department.			Whole school.		
					Instruction.	Incidentals.	Total.	Instruction.	Incidentals.	Total.	Instruction.	Incidentals.	Total.	Instruction.	Incidentals.	Total.
Adrian	$1,500 00	$16,740 00	$1,300 00	$19,540 00	$23 41	$6 61	$30 02	$13 22	$6 61	$19 83	$11 43	$6 61	$17 95	$13 93	$6 61	$20 54
Albion	1,500 00	9,315 00	574 00	11,389 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	14 99	5 31	20 30
Alpena	1,500 00	16,514 00	.....	18,014 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	11 00	3 83	14 83
Ann Arbor	2,300 00	35,419 83	2,425 00	40,144 83	37 83	8 81	46 64	13 06	8 81	21 87	13 06	8 81	21 87	18 95	8 81	27 76
Au Sable	720 00	2,395 25	.....	3,115 25	.....	.....	.....	.....	.....	.....	.....	.....	.....	7 20	1 34	8 54
Battle Creek	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bay City	2,000 00	50,995 26	2,532 50	55,527 76	32 40	8 54	40 94	17 62	8 54	26 16	10 14	8 54	18 68	14 64	8 54	23 18
Belding	950 00	4,975 00	.....	5,925 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	11 17	11 17	22 34
Benton Harbor	1,600 00	10,624 97	450 00	12,674 97	18 69	4 83	23 52	11 04	4 83	15 87	9 98	4 83	14 81	11 52	4 83	16 35
Bessemer	1,200 00	9,394 75	.....	10,594 75	.....	.....	.....	.....	.....	.....	.....	.....	.....	12 89	13 86	26 75
Big Rapids	1,200 00	8,860 00	.....	10,060 00	22 90	4 53	27 43	9 39	4 53	13 92	9 93	4 53	14 46	11 24	4 53	15 77
Cadillac	1,858 56	14,490 75	.....	16,349 31	.....	.....	.....	.....	.....	.....	.....	.....	.....	11 57	3 94	15 51
Charlotte	1,400 00	10,191 00	250 00	11,841 00	26 26	7 97	34 23	15 67	7 97	23 64	14 22	7 97	22 19	16 44	7 97	24 41
Cheboygan	1,100 00	9,990 50	.....	11,090 50	.....	.....	.....	.....	.....	.....	.....	.....	.....	9 91	4 35	14 26
Clare	800 00	2,527 50	.....	3,327 50	.....	.....	.....	.....	.....	.....	.....	.....	.....	9 92	26 97	36 19
Coldwater	1,400 00	12,083 00	.....	12,083 00	29 80	5 41	35 21	12 40	5 41	17 81	8 70	5 41	14 41	13 10	5 41	18 51
Corunna	1,000 00	3,400 00	225 00	4,625 00	17 38	6 35	23 73	15 84	6 35	22 19	13 75	6 35	20 10	15 11	6 35	21 46
Crystal Falls	1,350 00	8,166 26	600 00	10,116 26	36 36	8 51	44 87	15 88	8 51	24 39	9 79	8 51	18 30	13 00	8 51	21 51
Detroit	4,000 00	647,290 72	7,550 00	658,840 72	48 39	6 50	54 89	22 38	6 50	28 88	15 54	6 50	22 04	20 43	6 50	26 93
Dowagiac	1,400 00	9,886 00	.....	11,286 00	20 72	4 14	24 86	11 81	4 14	15 95	8 35	4 14	12 49	12 57	4 14	16 71
East Tawas	800 00	2,945 00	.....	3,745 00	11 74	2 53	14 27	7 78	2 53	10 31	8 51	2 53	11 04	8 59	2 53	11 12
Eaton Rapids	1,200 00	4,725 00	90 00	6,015 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	12 10	3 32	15 42
Escanaba	1,400 00	15,300 00	.....	16,715 00	27 73	4 30	32 03	17 93	4 30	17 23	10 26	4 30	14 56	12 62	4 30	16 92
Flint	1,600 00	27,169 96	1,150 00	29,919 96	24 80	11 11	35 91	11 74	11 11	22 85	11 17	11 11	22 28	14 40	11 11	25 51
Gladstone	1,100 00	6,400 00	.....	7,500 00	33 36	5 45	38 81	11 80	5 45	17 25	10 80	5 45	16 25	12 93	5 45	18 38
Gladwin	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Grand Haven	1,100 00	10,280 00	380 00	11,760 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	11 33	11 32	22 65
Grand Ledge, N. S	500 00	1,300 00	.....	1,800 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	10 72	3 93	14 65
Grand Ledge, S. S	900 00	2,225 00	.....	3,125 00	24 20	3 14	27 34	7 76	3 14	10 90	7 70	3 14	10 84	12 11	3 14	15 25
Grand Rapids	3,000 00	224,559 99	2,750 00	230,309 99	28 46	6 11	34 57	19 69	6 11	25 80	14 60	6 11	20 71	17 39	6 11	23 50
Greenville	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Harrison	500 00	720 00	.....	1,220 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	8 72	2 00	10 72
Hastings	1,750 00	5,870 00	300 00	7,920 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	14 77	13 01	27 78
Hillsdale	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Holland	1,300 00	12,979 03	500 00	14,779 03										9 29	3 11	12 40
Hudson	1,150 00	3,345 00		4,495 00	22 10	6 20	28 30	10 10	6 20	16 30	12 50	6 20	18 70	15 03	6 20	21 23
Ionia	1,350 00	11,804 00		13,154 00	37 42	6 96	44 38	21 26	6 96	28 22	13 77	6 96	20 73	17 06	6 96	24 02
Iron Mountain	2,000 00	23,774 40		25,774 40	31 85	3 43	35 28	12 88	3 43	16 31	10 83	3 43	14 26	12 45	3 43	15 88
Ironwood	2,100 00	24,523 75	1,200 00	27,823 75										13 11	10 16	23 27
Ishpeming																
Jackson	2,400 00	45,000 00	1,600 00	49,000 00										15 74	8 49	24 23
Kalamazoo	2,000 00	41,262 98	7,315 00	50,577 98	29 84	5 38	34 22	11 34	5 38	16 72	9 94	5 38	15 32	14 34	5 38	19 72
Lansing	1,600 00	33,961 27	1,050 00	36,611 27	20 68	8 07	28 75	13 31	8 07	21 38	10 89	8 07	18 96	13 08	8 07	21 15
Lapeer	1,300 00	6,605 00		7,905 00										15 41	19 05	34 46
Ludington	1,100 00	17,252 12		18,352 12	21 73	4 20	25 93	11 73	4 20	15 93	8 14	4 20	12 34	11 33	4 20	15 53
Mackinac Island																
Manistee	1,700 00	31,639 15	1,100 00	34,439 15	33 13	5 90	39 03	12 40	5 90	18 30	11 56	5 90	17 46	13 71	5 90	19 61
Manistique	2,050 00	9,067 63	500 00	11,617 63	42 49	16 90	59 39	13 68	16 90	30 58	13 67	16 90	30 57	15 19	16 90	32 09
Marine City	1,100 00	4,500 00		5,600 00										9 66	5 45	15 11
Marquette	1,700 00	19,728 00	1,180 00	22,608 00	28 66	8 43	37 09	13 09	8 43	21 52	12 49	8 43	20 92	15 77	8 43	24 20
Marshall	1,500 00	9,353 78		10,853 78										15 68	7 90	23 58
Mason	1,050 00	3,675 00	70 00	4,795 00	20 40	4 76	25 16	11 37	4 76	16 13	11 07	4 76	16 43	14 27	4 76	19 03
Menominee	2,200 00	25,569 60	2,137 50	29,907 10	25 25	4 23	29 48	13 05	4 23	17 28	10 68	4 23	14 91	12 49	4 23	16 72
Midland	900 00	4,175 00		5,075 00	19 01	3 84	22 85	8 24	3 84	12 08	7 38	3 84	11 22	10 25	3 84	14 09
Monroe	1,300 00	6,775 00	400 00	8,475 00										13 07	5 43	18 50
Mt. Clemens	1,500 00	11,078 13	500 00	13,078 13	28 08	5 51	33 59	12 62	5 51	18 13	10 74	5 51	16 25	13 98	5 51	19 49
Mt. Pleasant	1,200 00	7,280 00	150 00	8,630 00										13 11	3 12	16 23
Muskegon																
Negaunee	1,200 00	14,860 00		16,060 00	42 65	38 45	81 10	12 13	38 45	50 58	11 21	38 45	49 66	13 70	38 45	52 15
Niles	2,500 00	8,234 86		10,734 86	18 92	4 20	23 12	10 15	4 20	14 35	9 45	4 20	13 65	12 21	4 20	16 41
North Muskegon	280 00	480 00		760 00										8 26	3 88	12 14
Norway																
Owosso	1,600 00	18,008 42	600 00	20,208 42	18 86	5 39	24 25	7 49	5 39	12 88	8 15	5 39	13 54	12 73	5 39	18 12
Petoskey	1,300 00	9,148 75	266 00	10,714 75	27 41	3 54	30 95	11 58	3 54	15 12	9 35	3 54	12 89	12 65	3 54	16 19
Pontiac																
Port Huron	1,800 00	30,953 62		32,753 62	25 83	6 00	31 83	11 01	6 00	17 01	11 11	6 00	17 11	10 83	6 00	16 83
Saginaw																
Saginaw W. S.	1,500 00	33,753 88	1,300 00	26,553 88										14 13	8 23	22 36
Sault Ste. Marie	1,800 00	20,150 00	950 00	22,900 00	26 15	6 33	32 48	10 25	6 33	16 58	11 37	6 33	17 70	12 66	6 33	18 99
St. Clair	1,000 00	4,350 00	350 00	5,700 00	20 11	4 79	24 90	12 50	4 79	17 29	9 04	4 79	13 83	11 09	4 79	15 88
St. Ignace	585 00	3,029 00		3,614 00										11 05	4 50	15 55
St. Joseph																
St. Louis	1,000 00	4,550 00		5,550 00	27 58	6 66	24 24	13 37	6 66	20 03	9 87	6 66	16 53	13 47	6 66	20 13
Stanton	807 50	2,582 50		3,390 00	20 12	3 06	23 18	12 75	3 06	15 81	9 12	3 06	12 18	11 61	3 06	14 67
Sturgis	1,000 00	3,436 20	396 00	4,832 20	31 59	6 74	38 33	13 30	6 74	20 04	8 80	6 74	15 54	13 31	6 74	20 05
Tawas City	650 00	2,100 00		2,750 00	24 04	3 27	27 31	8 43	3 27	11 70	8 71	3 27	11 98	10 15	3 27	13 42
Three Rivers	1,200 00	8,411 00	828 75	10,439 75	19 00	5 34	24 34	30 00	5 34	35 34	33 50	5 34	38 84	15 79	5 34	21 13
Traverse City	1,600 00	18,422 99	855 00	20,877 99										12 10	4 05	16 15
West Bay City	1,400 00	23,645 15		25,045 15										12 52	6 57	19 09
Wyandotte																
Ypsilanti	1,800 00	11,736 25	750 00	14,286 25	22 27	4 66	26 93	13 73	4 66	18 39	12 34	4 66	17 00	15 18	4 66	19 84

* Where a blank occurs the item was not reported.

*TABLE XVIII.

Financial statistics of city schools as reported by superintendents for the year 1900–1901.

Incorporated cities.	Amount paid superintendent.	Amount paid regular teachers.	Amount paid spec'l teachers.	Total amount paid for instruction.	Cost of education per capita in—											
					High school.			Grammar department.			Primary department.			Whole school.		
					Instruction.	Incidentals.	Total.	Instruction.	Incidentals.	Total.	Instruction.	Incidentals.	Total.	Instruction.	Incidentals.	Total.
Adrian	$1,500 00	$16,740 00	$1,300 00	$19,540 00	$23 41	$6 61	$30 02	$13 22	$6 61	$19 83	$11 43	$6 61	$17 95	$13 93	$6 61	$20 54
Albion	1,500 00	9,315 00	574 00	11,389 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	14 99	5 31	20 30
Alpena	1,500 00	16,514 00	.....	18,014 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	11 00	3 83	14 83
Ann Arbor	2,300 00	35,419 83	2,425 00	40,144 83	37 83	8 81	46 64	13 06	8 81	21 87	13 06	8 81	21 87	18 95	8 81	27 76
Au Sable	720 00	2,395 25	.....	3,115 25	.....	.....	.....	.....	.....	.....	.....	.....	.....	7 20	1 34	8 54
Battle Creek	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bay City	2,000 00	50,995 26	2,532 50	55,527 76	32 40	8 54	40 94	17 62	8 54	26 16	10 14	8 54	18 68	14 64	8 54	23 18
Belding	950 00	4,975 00	.....	5,925 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	11 17	11 17	22 34
Benton Harbor	1,600 00	10,624 97	450 00	12,674 97	18 69	4 83	23 52	11 04	4 83	15 87	9 98	4 83	14 81	11 52	4 83	16 35
Bessemer	1,200 00	9,394 75	.....	10,594 75	.....	.....	.....	.....	.....	.....	.....	.....	.....	12 89	13 86	26 75
Big Rapids	1,200 00	8,860 00	.....	10,060 00	22 90	4 53	27 43	9 39	4 53	13 92	9 93	4 53	14 46	11 24	4 53	15 77
Cadillac	1,858 56	14,490 75	.....	16,349 31	.....	.....	.....	.....	.....	.....	.....	.....	.....	11 57	3 94	15 51
Charlotte	1,400 00	10,191 00	250 00	11,841 00	26 26	7 97	34 23	15 67	7 97	23 64	14 22	7 97	22 19	16 44	7 97	24 41
Cheboygan	1,100 00	9,990 50	.....	11,090 50	.....	.....	.....	.....	.....	.....	.....	.....	.....	9 91	4 35	14 26
Clare	800 00	2,527 50	.....	3,327 50	.....	.....	.....	.....	.....	.....	.....	.....	.....	9 92	26 97	36 19
Coldwater	1,400 00	12,083 00	.....	12,083 00	29 80	5 41	35 21	12 40	5 41	17 81	8 70	5 41	14 41	13 10	5 41	18 51
Corunna	1,000 00	3,400 00	225 00	4,625 00	17 38	6 35	23 73	15 84	6 35	22 19	13 75	6 35	20 10	15 11	6 35	21 46
Crystal Falls	1,350 00	8,166 26	600 00	10,116 26	36 36	8 51	44 87	15 88	8 51	24 39	9 79	8 51	18 30	13 00	8 51	21 51
Detroit	4,000 00	647,290 72	7,550 00	658,840 72	48 39	6 50	54 89	22 38	6 50	28 88	15 54	6 50	22 04	20 43	6 50	26 93
Dowagiac	1,400 00	9,886 00	.....	11,286 00	20 72	4 14	24 86	11 81	4 14	15 95	8 35	4 14	12 49	12 57	4 14	16 71
East Tawas	800 00	2,945 00	.....	3,745 00	11 74	2 53	14 27	7 78	2 53	10 31	8 51	2 53	11 04	8 59	2 53	11 12
Eaton Rapids	1,200 00	4,725 00	90 00	6,015 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	12 10	3 32	15 42
Escanaba	1,400 00	15,300 00	.....	16,715 00	27 73	4 30	32 03	17 93	4 30	17 23	10 26	4 30	14 56	12 62	4 30	16 92
Flint	1,600 00	27,169 96	1,150 00	29,919 96	24 80	11 11	35 91	11 74	11 11	22 85	11 17	11 11	22 28	14 40	11 11	25 51
Gladstone	1,100 00	6,400 00	.....	7,500 00	33 36	5 45	38 81	11 80	5 45	17 25	10 80	5 45	16 25	12 93	5 45	18 38
Gladwin	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Grand Haven	1,100 00	10,280 00	380 00	11,760 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	11 33	11 32	22 65
Grand Ledge, N. S.	500 00	1,300 00	.....	1,800 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	10 72	3 93	14 65
Grand Ledge, S. S.	900 00	2,225 00	.....	3,125 00	24 20	3 14	27 34	7 76	3 14	10 90	7 70	3 14	10 84	12 11	3 14	15 25
Grand Rapids	3,000 00	224,559 99	2,750 00	230,309 99	28 46	6 11	34 57	19 69	6 11	25 80	14 60	6 11	20 71	17 39	6 11	23 50
Greenville	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Harrison	500 00	720 00	.....	1,220 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	8 72	2 00	10 72
Hastings	1,750 00	5,870 00	300 00	7,920 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	14 77	13 01	27 78
Hillsdale	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Holland	1,300 00	12,979 03	500 00	14,779 03										9 29	3 11	12 40
Hudson	1,150 00	3,345 00		4,495 00	22 10	6 20	28 30	10 10	6 20	16 30	12 50	6 20	18 70	15 03	6 20	21 23
Ionia	1,350 00	11,804 00		13,154 00	37 42	6 96	44 38	21 26	6 96	28 22	13 77	6 96	20 73	17 06	6 96	24 02
Iron Mountain	2,000 00	23,774 40		25,774 40	31 85	3 43	35 28	12 88	3 43	16 31	10 83	3 43	14 26	12 45	3 43	15 88
Ironwood	2,100 00	24,523 75	1,200 00	27,823 75										13 11	10 16	23 27
Ishpeming																
Jackson	2,400 00	45,000 00	1,600 00	49,000 00										15 74	8 49	24 23
Kalamazoo	2,000 00	41,262 98	7,315 00	50,577 98	28 84	5 38	34 22	11 34	5 38	16 72	9 94	5 38	15 32	14 34	5 38	19 72
Lansing	1,600 00	33,961 27	1,050 00	36,611 27	20 68	8 07	28 75	13 31	8 07	21 38	10 89	8 07	18 96	13 08	8 07	21 15
Lapeer	1,300 00	6,605 00		7,905 00										15 41	19 05	34 46
Ludington	1,100 00	17,252 12		18,352 12	21 73	4 20	25 93	11 73	4 20	15 93	8 14	4 20	12 34	11 33	4 20	15 53
Mackinac Island																
Manistee	1,700 00	31,639 15	1,100 00	34,439 15	33 13	5 90	39 03	12 40	5 90	18 30	11 56	5 90	17 46	13 71	5 90	19 61
Manistique	2,050 00	9,067 63	500 00	11,617 63	42 49	16 90	59 39	13 68	16 90	30 58	13 67	16 90	30 57	15 19	16 90	32 09
Marine City	1,100 00	4,500 00		5,600 00										9 66	5 45	15 11
Marquette	1,700 00	19,728 00	1,180 00	22,608 00	28 66	8 43	37 09	13 09	8 43	21 52	12 49	8 43	20 92	15 77	8 43	24 20
Marshall	1,500 00	9,353 78		10,853 78										15 68	7 90	23 58
Mason	1,050 00	3,675 00	70 00	4,795 00	20 40	4 76	25 16	11 37	4 76	16 13	11 67	4 76	16 43	14 27	4 76	19 03
Menominee	2,200 00	25,569 60	2,137 50	29,907 10	25 25	4 23	29 48	13 05	4 23	17 28	10 68	4 23	14 91	12 49	4 23	16 72
Midland	900 00	4,175 00		5,075 00	19 01	3 84	22 85	8 24	3 84	12 08	7 38	3 84	11 22	10 25	3 84	14 09
Monroe	1,300 00	6,775 00	400 00	8,475 00										13 07	5 43	18 50
Mt. Clemens	1,500 00	11,078 13	500 00	13,078 13	28 08	5 51	33 59	12 62	5 51	18 13	10 74	5 51	16 25	13 98	5 51	19 49
Mt. Pleasant	1,200 00	7,280 00	150 00	8,630 00										13 11	3 12	16 23
Muskegon																
Negaunee	1,200 00	14,860 00		16,060 00	42 05	38 45	81 10	12 13	38 45	50 58	11 21	38 45	49 66	13 70	38 45	52 15
Niles	2,500 00	8,234 86		10,734 86	18 92	4 20	23 12	10 15	4 20	14 35	9 45	4 20	13 65	12 21	4 20	16 41
North Muskegon	280 00	480 00		760 00										8 26	3 88	12 14
Norway																
Owosso	1,600 00	18,008 42	600 00	20,208 42	18 86	5 39	24 25	7 49	5 39	12 88	8 15	5 39	13 54	12 73	5 39	18 12
Petoskey	1,300 00	9,148 75	266 00	10,714 75	27 41	3 54	30 95	11 58	3 54	15 12	9 35	3 54	12 89	12 65	3 54	16 19
Pontiac																
Port Huron	1,800 00	30,953 62		32,753 62	25 83	6 00	31 83	11 01	6 00	17 01	11 11	6 00	17 11	10 83	6 00	16 83
Saginaw																
Saginaw W. S.	1,500 00	33,753 88	1,300 00	26,553 88										14 13	8 23	22 36
Sault Ste. Marie	1,800 00	20,150 00	950 00	22,900 00	26 15	6 33	32 48	10 25	6 33	16 58	11 37	6 33	17 70	12 66	6 33	18 99
St. Clair	1,000 00	4,350 00	350 00	5,700 00	20 11	4 79	24 90	12 50	4 79	17 29	9 04	4 79	13 83	11 09	4 79	15 88
St. Ignace	585 00	3,029 00		3,614 00										11 05	4 50	15 55
St. Joseph																
St. Louis	1,000 00	4,550 00		5,550 00	27 58	6 66	24 24	13 37	6 66	20 03	9 87	6 66	16 53	13 47	6 66	20 13
Stanton	807 50	2,582 50		3,390 00	20 12	3 06	23 18	12 75	3 06	15 81	9 12	3 06	12 18	11 61	3 06	14 67
Sturgis	1,000 00	3,436 20	396 00	4,832 20	31 59	6 74	38 33	13 30	6 74	20 04	8 80	6 74	15 54	13 31	6 74	20 05
Tawas City	650 00	2,100 00		2,750 00	24 04	3 27	27 31	8 43	3 27	11 70	8 71	3 27	11 98	10 15	3 27	13 42
Three Rivers	1,200 00	8,411 00	828 75	10,439 75	19 00	5 34	24 34	30 00	5 34	35 34	33 50	5 34	38 84	15 79	5 34	21 13
Traverse City	1,600 00	18,422 99	855 00	20,877 99										12 10	4 05	16 15
West Bay City	1,400 00	23,645 15		25,045 15										12 52	6 57	19 09
Wyandotte																
Ypsilanti	1,800 00	11,736 25	750 00	14,286 25	22 27	4 66	26 93	13 73	4 66	18 39	12 34	4 66	17 00	15 18	4 66	19 84

* Where a blank occurs the item was not reported.

*TABLE XVIII.—CONTINUED.

Incorporated villages.	Amount paid superintendent.	Amount paid regular teachers.	Amount paid spec'l teachers.	Total amount paid for instruction.	Cost of education per capita in—											
					High school.			Grammar department.			Primary department.			Whole school.		
					Instruction.	Incidentals.	Total.	Instruction.	Incidentals.	Total.	Instruction.	Incidentals.	Total.	Instruction.	Incidentals.	Total.
Addison	$900 00	$810 00	.....	$1,410 00	$11 32	$2 44	$13 76	$0 85	$2 44	$3 39	$0 67	$2 44	$3 11	$8 60	$2 44	$11 04
Algonac	720 00	1,860 00	.....	2,580 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	7 93	3 64	11 57
Allegan	1,300 00	5,845 50	.....	7,145 50	.....	.....	.....	.....	.....	.....	.....	.....	.....	10 74	3 20	13 94
Alma	850 00	3,525 00	$300 00	4,675 00	17 86	5 24	23 10	12 25	5 24	17 49	7 81	5 24	13 05	10 95	5 24	16 19
Almont	700 00	1,670 00	.....	2,370 00	17 67	6 67	24 34	10 17	6 67	16 84	7 33	6 67	14 00	11 12	6 67	17 79
Armada	625 00	1,175 00	.....	1,800 00	14 23	6 30	20 53	9 33	6 30	15 63	5 77	6 30	12 07	9 09	6 30	15 39
Ashley	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Athens	535 00	810 00	.....	1,345 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	8 25	5 91	14 16
Atlanta	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Attica	400 00	250 00	.....	650 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	10 83	1 50	12 33
Augusta	450 00	1,080 00	.....	1,530 00	7 71	4 04	11 75	.....	.....	.....	.....	.....	.....	12 24	4 04	16 28
Bad Axe	850 00	3,110 00	.....	3,960 00	15 65	5 07	20 72	9 60	5 07	14 67	5 35	5 07	10 42	9 17	5 07	14 24
Baldwin	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bancroft	700 00	900 00	.....	1,600 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	13 01	3 66	16 67
Bangor	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Baraga	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bear Lake	480 00	556 00	.....	1,036 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	8 35	2 61	10 96
Beaverton	405 00	810 00	.....	1,215 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	6 52	4 21	10 73
Bellaire	720 00	2,067 00	.....	2,787 00	28 12	3 02	31 14	6 43	3 02	9 45	6 11	3 02	9 13	6 44	3 02	9 46
Bellevue	900 00	1,824 00	100 00	2,824 00	20 00	3 64	23 64	11 50	3 64	15 14	10 00	3 64	13 64	13 51	3 64	17 15
Benzonia	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Berrien Springs	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Birmingham	1,000 00	2,705 00	.....	3,705 00	22 57	3 75	26 32	7 17	3 75	10 92	7 62	3 75	11 37	11 58	3 75	15 33
Blissfield, E. S.	750 00	1,225 00	.....	1,975 00	17 50	4 45	21 95	16 00	4 45	20 45	7 50	4 45	11 95	11 76	4 45	16 21
Blissfield, W. S.	620 00	770 00	.....	1,390 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	10 89	2 88	13 77
Bloomingdale	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Boardman	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Boyne City	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Boyne Falls	450 00	990 00	.....	1,440 00	19 56	1 79	21 35	.....	.....	.....	.....	.....	.....	10 00	1 79	11 79
Breedsville	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Brighton	850 00	1,500 00	.....	2,350 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	12 77	4 11	16 88
Britton	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bronson	712 50	1,520 00	.....	2,232 50	20 61	1 40	22 01	5 41	1 40	6 81	5 84	1 40	7 24	8 79	1 40	10 19
Brooklyn	700 00	1,500 00	.....	2,200 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	12 94	2 56	15 50

Brown City	500 00	875 00		1,375 00	13 11	6 38	19 49	7 18	6 38	13 56	7 52	6 38	13 90	8 04	6 38	14 42
Buchanan	1,000 00	4,127 50	270 00	5,397 50										15 56	3 45	19 01
Burlington																
Burr Oak	540 00	1,680 00		2,220 00										14 70	3 31	18 01
Byron																
Caledonia	500 00	900 00		1,400 00										10 30	3 26	13 56
Camden																
Capac	600 00	1,000 00		1,600 00	19 50	9 35	28 85	11 53	9 35	20 88	8 03	9 35	17 38	9 93	9 35	19 28
Caro	850 00	3,925 00		4,775 00										10 75	5 62	16 37
Carson City																
Carsonville	500 00	500 00		1,000 00										7 14	1 76	8 90
Caseville	700 00	600 00		1,300 00										9 56	1 59	11 15
Casnovia	540 00	567 00		1,107 00										15 38	2 14	17 52
Cass City																
Cassopolis	950 00	2,962 50		3,912 50										13 26	5 08	18 34
Cedar Springs	760 00	2,038 25		2,798 25	12 25	2 45	14 70	8 00	2 45	10 45	7 98	2 45	10 43	11 06	2 45	13 51
Central Lake	480 00	1,000 00		1,480 00										5 03	1 06	6 09
Centreville	800 00	1,575 00		2,375 00	27 14	12 93	40 07	8 51	12 93	21 44	6 92	12 93	19 85	16 72	12 93	29 65
Charlevoix																
Chelsea	1,000 00	3,860 00	200 00	5,060 00	20 06	6 76	26 82	11 66	6 76	18 42	8 74	6 76	15 50	13 94	6 76	20 70
Chesaning	900 00	2,270 00		3,170 00										13 32	6 35	19 67
Clarkston	650 00	925 00		1,575 00	18 00	2 50	20 50	7 21	2 50	9 71	11 54	2 50	14 04	12 12	2 50	14 62
Clayton																
Clifford																
Climax	450 00	850 00		1,300 00										10 00	6 15	16 15
Clinton	600 00	1,629 00		2,229 00	13 17	2 27	15 44	12 40	2 27	14 67	14 10	2 27	16 37	8 77	2 27	11 04
Clio	850 00	1,650 00		2,500 00										13 51	3 06	16 57
Coleman																
Coloma	495 00	1,080 00		1,575 00	17 07	2 29	19 36	6 82	2 29	9 11	6 63	2 29	8 92	8 29	2 29	10 58
Columbiaville	500 00	840 00		1,340 00										11 45	12 25	23 70
Concord	750 00	1,377 50		2,127 50										16 88	4 58	21 46
Constantine	900 00	2,550 00		3,450 00										15 61	8 74	24 35
Coopersville	600 00	1,140 00		1,740 00										10 11	2 11	12 22
Copemish																
Croswell																
Croton																
Custer																
Dansville	600 00	900 00		1,500 00										18 52	8 64	27 16
Davison	700 00	1,125 00		1,825 00	15 21	1 77	16 98	11 03	1 77	12 80	7 40	1 77	9 17	10 19	1 77	11 96
Dearborn	600 00	1,500 00		2,100 00										8 40	3 67	12 07
Decatur	950 00	2,270 50		3,220 50	21 10	4 40	25 50	5 80	4 40	10 20	6 07	4 40	10 47	11 36	4 40	15 76
Deckerville																
Deerfield																
Delray																
Detour																

* Where a blank occurs the item was not reported.

*TABLE XVIII.—CONTINUED.

Incorporated villages.	Amount paid superintendent.	Amount paid regular teachers.	Amount paid spec'l teachers.	Total amount paid for instruction.	Cost of education per capita in—											
					High school.			Grammar department.			Primary department.			Whole school.		
					Instruction.	Incidentals.	Total.	Instruction.	Incidentals.	Total.	Instruction.	Incidentals.	Total.	Instruction.	Incidentals.	Total.
Dexter	$810 00	$1,775 00	$100 00	$2,685 00	$26 19	$2 98	$29 07	.....	.....	.....	.....	.....	.....	$11 88	$2 98	$14 86
Douglas	540 00	576 00	.....	1,116 00	24 54	6 84	31 39	$7 20	$6 84	$14 04	$6 40	$6 84	$13 24	10 42	6 84	17 26
Dryden	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Dundee	850 00	2,450 00	.....	3,300 00	23 00	2 30	25 30	11 10	2 30	13 40	10 10	2 30	12 40	10 82	2 30	13 12
Durand	750 00	3,580 00	.....	4,330 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	10 46	13 17	23 63
Eagle	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
East Grand Rapids	360 00	315 00	.....	675 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	11 25	2 61	13 86
East Jordan	700 00	2,160 00	.....	2,860 00	25 00	5 29	30 29	8 16	5 29	13 45	7 62	5 29	12 91	10 00	5 29	15 29
Eau Claire	450 00	315 00	.....	765 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	8 89	1 92	10 81
Edmore	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Elkton	400 00	870 00	.....	1,270 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	4 89	2 00	6 89
Elsie	540 00	963 00	.....	1,503 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	6 59	1 34	7 93
Emmett	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Empire	450 00	540 00	.....	990 00	10 30	2 46	12 76	6 35	2 46	8 81	6 86	2 46	9 32	7 92	2 46	10 38
Essexville	700 00	1,200 00	.....	1,900 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	10 56	9 62	20 18
Evart	888 75	3,936 93	.....	4,825 68	22 25	3 74	25 99	12 37	3 74	16 11	7 20	3 74	10 94	10 79	3 74	14 53
Farmington	650 00	460 00	.....	1,110 00	36 11	6 62	42 73	8 21	6 62	14 83	4 26	6 62	10 88	9 00	6 62	15 62
Farwell	540 00	864 00	.....	1,404 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	6 53	1 11	7 64
Fennville	750 00	1,007 40	.....	1,757 40	.....	.....	.....	.....	.....	.....	.....	.....	.....	8 83	2 78	11 61
Fenton	1,000 00	4,900 00	250 00	6,150 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	11 06	9 24	20 30
Fife Lake	500 00	660 00	.....	1,160 00	10 82	2 13	12 95	5 00	2 13	7 13	6 12	2 13	8 25	7 08	2 13	9 21
Flushing	730 00	1,725 00	.....	2,455 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	12 52	1 85	14 37
Forestville	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Fowler	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Fowlerville	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Frankfort	1,000 00	3,250 00	350 00	4,600 00	14 07	2 86	16 93	15 27	2 86	18 13	10 07	2 86	12 93	13 18	2 86	16 04
Fraser	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Fremont	750 00	2,264 50	.....	3,014 50	19 20	3 25	22 45	14 00	3 25	17 25	5 60	3 25	8 85	10 01	3 25	13 26
Fruitport	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Gagetown	550 00	240 00	.....	790 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	12 53	25 10	37 63
Gaines	500 00	500 00	.....	1,000 00	19 49	4 94	24 43	10 30	4 94	15 84	6 82	4 94	11 76	10 02	4 94	14 96
Galesburg	800 00	1,359 00	.....	2,159 00	17 65	3 64	21 29	10 48	3 64	14 12	7 45	3 64	11 09	11 86	3 64	15 50
Galien	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Garden	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Gaylord	750 00	2,110 00	50 00	2,910 00	31 30	4 58	35 88	9 35	4 58	13 93	7 35	4 58	11 93	12 50	4 58	17 08
Glenwood	475 00	902 50		1,377 50										5 81	2 64	8 45
Gobleville																
Grandville																
Grant																
Grass Lake																
Grosse Pointe																
Grosse Pointe Farms	450 00	350 00		800 00				12 50	3 14	15 64	4 73	3 14	7 87	7 27	3 14	10 41
Hancock																
Hanover	650 00	950 00		1,600 00										12 03	5 21	17 24
Harbor Beach																
Harbor Springs																
Harrietta																
Harrisville	450 00	837 00		1,287 00	13 30	2 18	15 48	8 40	2 18	10 58	6 88	2 18	9 06	8 70	2 18	10 88
Hart	850 00	2,205 00		3,055 00										7 85	4 80	12 65
Hartford																
Hersey	600 00	600 00		1,200 00										12 00	2 62	14 62
Hesperia	450 00	1,125 00		1,575 00	15 30	4 53	19 83	6 75	4 53	11 28	6 75	4 53	11 28	9 27	4 53	13 80
Highland Park	1,000 00	1,300 00		2,300 00				32 60	8 20	40 80	14 50	8 20	22 70	21 90	8 20	30 10
Hillman																
Holly	1,000 00	2,510 00		3,510 00										11 94	4 56	16 50
Homer																
Houghton	1,300 00	10,607 25		11,907 25										21 28	12 05	33 33
Howard City																
Howell																
Hubbardston	525 00	472 00		997 00	14 76	4 12	18 88	10 90	4 12	15 02	8 46	4 12	12 58	11 34	4 12	15 46
Imlay City	900 00	2,450 00		3,350 00										9 79	2 02	11 81
Iron River																
Ithaca	1,100 00	3,456 25	300 00	4,856 25	19 89	2 98	22 87	8 22	2 98	11 20	8 16	2 98	11 14	10 51	2 98	13 49
Jonesville	850 00	2,335 00		3,185 00										13 61	5 57	19 18
Kalkaska	850 00	2,275 50		3,125 50	33 28	6 83	40 11	13 07	6 83	19 90	12 47	6 83	19 30	12 76	6 83	19 59
Kingsley																
Kingston																
Laingsburg																
Lake Ann	540 00	315 00		855 00										11 55	4 25	15 80
Lake City	450 00	1,575 00		2,025 00	23 68	4 62	28 30	9 00	4 62	13 62	7 32	4 62	11 94	9 00	4 62	13 62
Lake Linden	1,800 00	14,585 00	1,100 00	17,485 00	32 30	8 39	40 69	28 87	8 39	37 26	16 15	8 39	24 54	21 61	8 39	30 00
Lake Odessa	665 00	1,710 00		2,375 00	22 28	2 88	25 16	7 92	2 88	10 80	7 19	2 88	10 07	9 13	2 88	12 01
Lakeview	1,000 00	1,772 50		2,772 50	11 43	4 70	15 13	6 41	4 70	11 11	5 53	4 70	10 23	7 62	4 70	12 32
L'Anse	1,100 00	1,400 00		2,500 00										17 48	9 68	27 16
Laurium	1,100 00	7,112 50		8,212 50										12 91	8 65	21 56
Lawrence																
Lawton	500 00	1,472 00		1,972 00										9 52	3 38	12 90
Leonard																
Le Roy	540 00	945 00		1,485 00										10 80	25 69	36 49

* Where a blank occurs the item was not reported.

*TABLE XVIII.—CONTINUED.

Incorporated villages.	Amount paid superintendent.	Amount paid regular teachers.	Amount paid spec'l teachers.	Total amount paid for instruction.	Cost of education per capita in—											
					High school.			Grammar department.			Primary department.			Whole school.		
					Instruction.	Incidentals.	Total.	Instruction.	Incidentals.	Total.	Instruction.	Incidentals.	Total.	Instruction.	Incidentals.	Total.
Leslie	$850 00	$1,850 00		$2,700 00	$17 65	$7 51	$25 16	$11 87	$7 51	$19 38	$7 27	$7 51	$14 78	$11 39	$7 51	$18 90
Lexington	600 00	1,200 00		1,800 00										12 76	5 32	18 08
Linden																
Lisbon	415 00	450 00		865 00										9 83	1 95	11 78
Litchfield	550 00	1,224 00		1,774 00										12 85	4 93	17 78
Lowell	900 00	4,110 00		5,010 00										11 60	12 87	24 47
Luther	600 00	1,258 75		1,858 75										8 89	3 65	12 54
Lyons	550 00	918 00		1,468 00										11 29	14 01	25 30
Mackinaw City	630 00	855 00		1,485 00	31 50	7 56	39 06	9 47	7 56	17 03	9 84	7 56	17 46	13 37	7 56	20 93
Mancelona	765 00	2,925 00		3,690 00										8 91	3 41	12 32
Manchester	950 00	2,500 00		3,450 00	17 81	4 75	22 56	9 10	4 75	13 85	8 00	4 75	12 75	11 46	4 75	16 21
Manton	630 00	2,025 00		2,655 00	23 94	5 12	29 06	8 28	5 12	13 40	9 63	5 12	14 75	10 83	5 12	15 95
Maple Rapids	650 00	950 00		1,600 00	22 57	3 30	25 86	12 80	3 30	16 10	8 05	3 30	11 35	12 90	3 30	16 21
Marcellus	700 00	1,980 00		2,680 00	24 00	12 40	36 40	13 75	12 40	26 15	9 71	12 40	22 11	12 30	12 40	24 70
Marion																
Marlette																
Mayville																
McBain																
McBride																
Mecosta																
Memphis	600 00	920 00		1,520 00	14 00	5 18	19 18	5 00	5 18	10 18	6 46	5 18	11 64	9 21	5 18	14 39
Mendon																
Merrill																
Metamora																
Middleville																
Milan																
Milford	950 00	1,825 00		2,775 00	18 46	2 05	20 51	7 46	2 05	9 51	10 00	2 05	12 05	11 37	2 05	13 42
Millington																
Minden	455 00	290 00		745 00				9 10	1 01	10 11	4 75	1 01	5 76	5 73	1 01	6 74
Montague		2,564 75	$100 00	2,664 75	35 40	11 01	46 41	7 50	11 01	18 51	8 61	11 01	19 62	12 00	11 01	23 01
Montrose																
Morenci	800 00	1,710 00		2,510 00	21 97	2 50	24 47	7 61	2 50	10 11	7 47	2 50	9 97	10 68	2 50	13 18
Morley																
Morrice	500 00	900 00		1,400 00	10 41	3 64	14 05	15 00	3 64	18 64	8 33	3 64	11 97	10 53	3 64	14 17

Mt. Morris	540 00	477 00		1,017 00										8 26	1 99	10 25
Munising	1,000 00	4,720 00		5,720 00										12 33	9 22	21 55
Muir	500 00	828 00		1,328 00	21 74	3 29	26 03	7 58	3 29	10 87	5 03	3 29	8 32	10 37	3 29	13 66
Muskegon Heights	825 00	1,320 00		2,145 00										10 16	5 39	15 55
Nashville	700 00	2,650 00		3,350 00	17 00	6 46	23 46	11 50	6 46	17 96	12 00	6 46	18 46	12 78	6 46	19 28
Naubinway																
Newaygo	800 00	2,020 00		2,820 00										9 93	4 05	13 98
New Baltimore	600 00	950 00		1,550 00										16 35	6 48	22 83
Newberry																
New Boston																
New Buffalo																
New Haven																
North Adams																
North Branch																
Northville	850 00	3,050 00		3,900 00										17 00	3 09	20 09
Oakley	400 00	196 88		596 88										7 85	3 30	11 15
Olivet	775 00	1,600 00	125 00	2,500 00										11 41	1 28	12 69
Onekama	477 00	576 00		1,053 00										10 85	2 83	13 68
Onaway	600 00	1,512 50		2,112 50	24 00	4 14	28 14	10 09	4 14	14 23	3 59	4 14	7 73	5 57	4 14	9 71
Ontonagon																
Orion	500 00	851 00		1,351 00										9 07	6 53	15 60
Oscoda	405 00	1,530 00		1,935 00	17 76	1 31	19 07	5 00	1 31	6 31	4 56	1 31	5 87	6 06	1 31	7 37
Otisville	500 00	500 00		1,000 00										6 00	1 46	7 46
Otsego	1,000 00	4,419 00	108 00	5,527 00	22 97	5 14	28 11	10 33	5 14	15 47	9 99	5 14	15 13	12 88	5 14	18 02
Otter Lake	405 00	234 00		639 00	8 22	93	9 15	8 22	93	9 15	7 38	93	8 31	7 89	93	8 82
Ovid	1,000 00	3,040 00		4,040 00	12 33	2 88	15 18	6 50	2 88	9 38	9 99	2 88	12 87	11 99	2 88	14 87
Oxford	825 00	1,945 00	195 00	2,965 00										13 23	8 24	21 47
Parma	650 00	950 00		1,600 00	19 12	5 72	24 84	12 58	5 72	18 30	10 19	5 72	15 91	13 67	5 72	19 39
Paw Paw	1,200 00	2,820 00	200 00	4,220 00										14 02	6 41	20 43
Pentwater	900 00	1,893 00		2,793 00	35 75	4 32	40 07	8 69	4 32	13 01	6 16	4 32	10 48	11 83	4 32	16 13
Perrinton																
Perry	700 00	1,250 00		1,950 00										9 51	3 82	13 33
Petersburg	600 00	1,057 50		1,657 50	10 76	3 73	14 49	10 76	3 73	14 49	10 76	3 73	14 49	10 10	3 73	13 83
Pewamo																
Pierson																
Pinckney	700 00	950 00		1,650 00										14 47	7 01	21 48
Pinconning	600 00	1,500 00		2,100 00	17 55	2 85	20 40	9 60	2 85	12 45	7 60	2 85	10 45	10 98	2 85	13 73
Plainwell	950 00	2,745 50	142 50	3,838 00										13 23	3 47	16 70
Plymouth	950 00	3,175 00	200 00	4,325 00	25 08	9 05	34 13	11 66	9 05	20 71	7 21	9 05	16 26	12 08	9 05	21 13
Port Austin	600 00	986 00		1,586 00										10 10	1 99	12 09
Port Hope	500 00	600 00		1,100 00												
Portland	1,000 00	4,025 00		5,025 00										14 20	6 57	20 77
Port Sanilac	450 00	468 00		918 00										7 91	1 64	9 55
Potterville	405 00	653 00		1,058 00										8 12	2 96	11 08
Quincy	850 00	2,300 00		3,150 00										12 60	5 47	18 07

* Where a blank occurs the item was not reported.

*TABLE XVIII.—CONCLUDED.

Incorporated villages.	Amount paid superintendent.	Amount paid regular teachers.	Amount paid spec'l teachers.	Total amount paid for instruction.	Cost of education per capita in—											
					High school.			Grammar department.			Primary department.			Whole school.		
					Instruction.	Incidentals.	Total.	Instruction.	Incidentals.	Total.	Instruction.	Incidentals.	Total.	Instruction.	Incidentals.	Total.
Reading	$950 00	$1,776 50	.....	$2,726 50	.....	.....	.....	.....	.....	.....	.....	.....	.....	$12 86	$4 53	$17 39
Reed City	1,150 00	4,482 50	.....	5,632 50	.....	.....	.....	.....	.....	.....	.....	.....	.....	11 93	3 20	15 13
Reese	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Richland	475 00	902 50	.....	1,377 50	$14 34	$3 51	$17 85	$12 87	$3 51	$16 38	$7 12	$3 51	$10 63	13 75	3 51	17 26
Richmond	600 00	1,233 00	.....	1,833 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	9 91	1 39	11 30
River Rouge	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Rochester	900 00	1,500 00	.....	2,400 00	22 22	2 54	24 76	6 00	2 54	8 54	8 50	2 54	11 04	9 23	2 54	11 77
Rockford	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Rogers	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Romeo	1,350 00	2,747 37	.....	4,097 37	17 92	4 07	21 99	8 12	4 07	12 19	7 10	4 07	11 17	12 56	4 07	16 63
Roscommon	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Royal Oak	550 00	850 00	.....	1,400 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	7 37	1 06	8 43
Saline	900 00	1,780 00	$190 00	2,870 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	16 98	5 83	22 81
Sand Lake	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sanilac Center	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Saranac	550 00	1,675 00	.....	2,225 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	8 15	4 08	12 23
Saugatuck	800 00	1,065 00	.....	1,865 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	8 07	9 60	17 67
Schoolcraft	1,000 00	2,250 00	.....	3,250 00	49 75	7 05	56 80	15 65	7 05	22 70	9 58	7 05	16 63	18 78	7 05	25 83
Scottville	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sebewaing	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Shelby	750 00	1,665 00	.....	2,415 00	21 83	6 55	28 38	8 85	6 55	15 40	4 96	6 55	11 51	10 07	6 55	16 62
Shepherd	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sheridan	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sherman	450 00	495 00	.....	945 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sherwood	475 00	878 75	.....	1,353 75	.....	.....	.....	.....	.....	.....	.....	.....	.....	13 81	7 87	21 68
South Frankfort	650 00	900 00	.....	1,550 00	4 84	3 35	8 19	13 93	3 35	17 28	11 90	3 35	15 25	11 56	3 35	14 91
South Haven	1,200 00	5,242 50	.....	6,442 50	15 67	2 52	18 19	7 74	2 52	10 26	6 78	2 52	9 30	8 93	2 52	11 45
South Lyon	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sparta	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Spring Lake	700 00	1,380 00	.....	2,080 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	12 84	2 88	15 72
Springport	600 00	1,350 00	.....	1,950 00	19 60	3 56	23 16	10 71	3 56	14 27	8 02	3 56	12 18	13 83	3 56	17 39
Stambaugh	700 00	2,595 00	.....	3,295 00	40 80	7 10	47 90	17 00	7 10	24 10	8 41	7 10	15 51	15 32	7 10	22 42
Standish	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
St. Charles	800 00	2,142 00	.....	2,942 00	28 57	4 05	32 62	9 52	4 05	13 57	9 36	4 05	13 41	9 43	4 05	13 48

St. Johns	1,200 00	7,805 00	.....	9,005 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	13 32	7 37	20 69
Stephenson	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Stevensville	500 00	1,000 00	.....	1,500 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	10 27	2 97	13 24
Stockbridge	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sunfield	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sutton's Bay	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Tecumseh	1,200 00	4,825 00	350 00	6,375 00	22 30	3 46	25 76	10 93	3 46	14 39	12 44	3 46	15 90	13 12	3 46	16 58
Tekonsha	540 00	855 00	.....	1,395 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	9 36	3 20	12 56
Thompsonville	540 00	1,435 00	.....	1,975 00	10 33	1 90	12 23	13 00	1 90	14 90	5 00	1 90	6 90	7 51	1 90	9 41
Three Oaks	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Trenton	700 00	1,320 00	.....	2,020 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	8 13	6 35	14 48
Tustin	500 00	700 00	.....	1,200 00	20 00	3 75	23 75	8 54	3 75	12 29	10 29	3 75	14 04	12 00	3 75	15 75
Ubly	500 00	480 00	.....	980 00	11 62	3 39	15 01	5 95	3 39	9 34	5 71	3 39	9 10	7 84	3 39	11 23
Union City	900 00	3,850 00	325 00	5,075 00	29 70	6 27	35 97	12 15	6 27	18 42	10 75	6 27	17 02	16 75	6 27	23 02
Unionville	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Utica	900 00	1,200 00	.....	2,100 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	13 12	23 03	36 15
Vandalia	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Vassar	1,000 00	3,540 00	.....	4,540 00	30 15	5 36	35 51	8 36	5 36	18 72	9 00	5 36	14 36	13 16	5 36	18 52
Vermontville	600 00	1,520 00	.....	2,120 00	20 40	3 10	23 50	8 26	3 10	11 36	10 40	3 10	13 50	10 98	3 10	14 08
Vernon	700 00	900 00	.....	1,600 00	16 66	2 61	19 27	11 66	2 61	14 27	11 41	2 61	14 01	11 76	2 61	14 37
Vicksburg	800 00	1,931 00	135 00	2,866 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	13 27	4 77	18 04
Wakefield	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Warren	450 00	219 00	.....	669 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Watervliet	810 00	2,205 00	.....	3,005 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	11 08	3 69	14 77
Wayland	675 00	825 00	.....	1,500 00	12 60	2 56	15 16	8 10	2 56	10 66	7 00	2 56	9 56	8 82	2 56	11 38
Wayne	850 00	2,700 00	160 00	3,710 00	22 22	1 70	23 92	10 01	1 70	11 71	7 40	1 70	9 10	11 28	1 70	12 98
Webberville	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
West Branch	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Westphalia	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
White Cloud	490 00	882 50	.....	1,372 50	.....	.....	.....	.....	.....	.....	.....	.....	.....	9 94	2 74	12 68
Whitehall	750 00	2,686 88	.....	3,436 88	20 00	3 16	23 16	9 00	3 16	12 16	7 00	3 16	10 16	10 77	3 16	13 93
White Pigeon	850 00	1,620 00	.....	2,470 00	25 00	3 36	28 36	16 00	3 36	19 36	8 25	3 36	11 61	16 58	3 36	19 94
Williamston	850 00	2,930 00	.....	3,780 00	25 94	7 91	33 85	12 38	7 91	20 29	10 47	7 91	18 38	14 60	7 91	22 51
Woodland	405 00	500 10	.....	905 10	.....	.....	.....	.....	.....	.....	.....	.....	.....	8 22	3 34	11 56
Yale	750 00	1,800 00	.....	2,550 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	8 72	3 75	12 47
Zeeland	536 25	2,227 50	50 00	2,813 75	14 69	3 56	18 25	8 04	3 56	11 60	5 66	3 56	9 22	7 44	3 56	11 00

* Where a blank occurs the item was not reported.

TABLE XIX.

Special report of the superintendent of city schools.

Incorporated cities.	No. of teachers in schools, including superintendent and special teachers.	No. of special teachers employed.	No. of instructors in manual training.	No. of instructors in penmanship.	No. of instructors in drawing.	No. of instructors in kindergarten.	No. of instructors in commercial course.	No. of instructors in music.	Are your teachers of music, drawing and kindergarten qualified according to act No. 166 of 1901?	If not have they been granted city certificates?	Are all regular teachers holders of legal certificates of qualifications?	No. holding certificates granted or indorsed by the State board of education	No. holding northern normal school certificates.	No. holding central normal school certificates.	No. holding State normal college certificates.	No. holding certificates granted by State university under provisions of sec. 4804 of comp. laws.	No. holding college certificates granted according to sec. 4805 of compiled laws.	No. holding city certificates of first grade.	No. holding city certificates of second grade.	No. holding city certificates of third grade.	No. holding county certificates.	Portion of superintendent's time given to supervision.
Totals	4,149	155	54	36	68	204	49	56	.....	.....	.....	72	15	77	569	193	79	459	867	785	101	.....
Adrian	43	3	....	....	1	1	1	1	yes	.....	yes	3	.....	.....	3	2	2	4	11	18	....	all
Albion	28	2	....	....	1	.....	.....	1	yes	.....	yes	1	.....	1	9	2	9	1	2	3	....	5-6
*** Alpena**	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Ann Arbor	73	7	2	....	1	.....	1	1	no	yes	yes	.....	.....	.....	3	3	.....	23	21	23	....	all
Au Sable	9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	1	1	.....	.....	9	1-2
Battle Creek	90	4	2	....	1	.....	.....	1	.....	yes	yes	.....	.....	1	4	5	.....	.....	80	.....	....	all
Bay City	124	6	3	....	1	.....	1	1	yes	.....	yes	.....	.....	.....	1	12	.....	95	.....	16	....	all
Belding	17	3	....	1	1	1	1	.....	yes	.....	yes	.....	.....	1	5	.....	2	.....	5	2	2	1-2
Benton Harbor	34	1	....	1	1	.....	1	.....	no	yes	yes	1	.....	6	15	.....	.....	.....	4	8	....	5-6
Bessemer	24	1	....	....	1	2	.....	1	no	yes	yes	5	.....	.....	4	1	.....	12	.....	.....	25	2-3
Big Rapids	26	1	....	1	1	4	1	1	.....	yes	yes	.....	.....	.....	2	.....	1	5	4	14	....	6-8
Cadillac	35	1	....	....	.....	.....	.....	.....	yes	.....	yes	2	.....	2	17	2	.....	9	5	.....	....	all
Charlotte	24	1	....	....	1	.....	1	1	yes	.....	yes	.....	.....	.....	5	4	4	6	5	.....	....	6-7
Cheboygan	26	.....	....	22	22	.....	1	.....	.....	yes	yes	3	.....	.....	4	.....	.....	1	10	8	....	4-7
Clare	9	.....	.....	.....	.....	.....	.....	.....	.....	.....	yes	.....	.....	2	2	1	2	.....	.....	.....	2	1-4
Coldwater	28	.....	.....	.....	.....	2	1	.....	yes	.....	yes	.....	.....	.....	12	1	2	2	11	.....	....	6-7
Corunna	12	2	....	....	1	.....	.....	1	yes	.....	yes	.....	.....	.....	1	.....	1	1	4	5	....	1-2
Crystal Falls	23	1	....	....	1	1	.....	1	yes	.....	yes	1	.....	1	6	.....	.....	.....	.....	.....	15	2-3
† Detroit	904	6	12	1	1	75	8	1	yes	.....	yes	15	.....	2	71	32	4	.....	.....	.....	....	all
Dowagiac	25	2	....	....	.....	1	.....	1	yes	.....	yes	2	.....	.....	2	2	2	.....	17	.....	....	5-7
East Tawas	10	.....	.....	....	.....	1	.....	.....	yes	.....	yes	.....	.....	.....	3	.....	1	.....	2	4	....	1-4
Eaton Rapids	15	1	....	....	1	.....	.....	1	yes	.....	yes	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	.....
Escanaba	37	1	....	....	.....	3	.....	1	yes	yes	yes	.....	2	2	4	3	.....	26	.....	.....	....	1-2
Flint	69	2	1	....	1	.....	1	1	yes	.....	yes	2	.....	2	14	1	.....	14	16	20	....	all
Gladstone	17	.....	....	....	.....	2	.....	.....	yes	.....	yes	.....	.....	.....	2	1	.....	2	7	5	....	2-3
Gladwin	5	.....	....	....	.....	.....	.....	.....	.....	.....	yes	.....	.....	1	.....	.....	.....	.....	.....	.....	4	small

Grand Haven	30	1				3	1		no	yes	yes				4	2		2	22				5-6
‡Gd. Ledge, No. 9 fl.	8	1						1	no	no	yes				2		1				5	5	none
‡Gd. Ledge, No. 11 fl.	5										yes			1	3						1	1	1-10
Grand Rapids	396	3	12			30	3	1		yes	yes				31	17		52	113	168			all
Greenville	21	3					1	1	no	yes	yes	1		2		1		3	4	10			1-2
Harrison	4										yes	1									3	3	small
Hastings	19							1	yes		yes				3	1	1	1	4				5-7
Hillsdale	23	2						1	no	yes	yes				6		3	2	5	5			3-4
Holland	39				1			1	yes	yes	yes			4	10		2	6	7	10			all
Hudson	16	1				1				yes	yes				3	1				10	3		
Ionia	30	1		1	1	3	1		yes	yes	yes	3		1	1	2		9	12	2			1-4
Iron Mountain	53										yes		1	3	12	1		5	16	15			all
Ironwood	58	16			1	14		1		yes	yes	2		1	6	1				48			all
Ishpeming	65	2			1	9		1		yes	yes	1	1		5	3			19	36			all
Jackson	90	2			1			1	yes		yes				37	6		3	16	25			all
Kalamazoo	108	17	5		1	10	1	1	no	yes	yes			1	15	4	2	11	32	42			all
Lansing	81	2			1			1	yes		yes	1			14	4	1	15	39	4			all
Lapeer	20	1				3	1		yes	yes	yes				9	1		1	5	3			2-3
Ludington	45	1			1			1	yes		yes			3	11	2	1	2	26				all
‡Mackinac Island	4										yes	1									3		
Manistee	76	2			1	2	4	1	yes	yes	yes			2	7		1	41	17	6			all
Manistique	25	1				3		1			yes	1		1	2			3	15	2			3-5
Marine City	14						1				yes	1		3			2	1	2	5			1-2
Marquette	46	1				2	1	1		yes	yes	3	6		6	5		6	14	6			all
Marshall	25	1			1				yes		yes				7	2	2	3	4	6			2-3
Mason	12	1						1	yes		yes	1						4	3	3			1-2
Menominee	67	12	2		1	8		1	yes			1	2	7	11			9	21	13			all
Midland	16	1					1	1	yes		yes			3	1			2	4	6			4-7
Monroe	19	2		1	1			1	no		yes	1				3		2	5	6			5-7
Mt. Clemens	30				1			1	no	yes	yes				5		1	6	8	10			all
Mt. Pleasant	24	1			1		1	1	yes	yes	yes	1		7	8	9	9	1	1	6			5-7
Muskegon	118		9		2	10	2	1								5	2				7		all
Negaunee	35	1			1	1	1	1	yes		yes		3		9	1		3	6	13			all
Niles	25	1						1		yes	yes	2		2	5	2	2	7	1	4	4		2-3
* North Muskegon																							
Norway	15					3	1		yes		yes	1			1		2		11				3-8
Owosso	45	2			1		1	1		yes	yes				11		2	9	10	13			all
Petoskey	29	1					1	1	yes		yes	1		3	9	2	1	1	5	7			all
Pontiac	36	2			1	1		1	yes		yes			3	10	6		1	8	8			all
Port Huron	77	1					2	1	yes		yes			1	7	12		2	26	29			all
Saginaw	146	8	4	1	1		3	1	yes		yes			1	5	4		17	51	68			all
Saginaw, W. S.	77	2			1		1	1		yes	yes	4			5	3	2		28	30			all
Sault Ste. Marie	51	2		1	1	2		1	yes		yes												

* No report received.
† 780 hold city certificates.
‡ Under county supervision.

TABLE XIX.—CONCLUDED.

Incorporated cities.	No. of teachers in schools, including superintendent and special teachers.	No. of special teachers employed.	No. of instructors in manual training.	No. of instructors in penmanship.	No. of instructors in drawing.	No. of instructors in kindergarten.	No. of instructors in commercial course.	No. of instructors in music.	Are your teachers of music, drawing and kindergarten qualified according to act No. 166 of 1901?	If not have they been granted city certificates?	Are all regular teachers holders of legal certificates of qualifications?	No. holding certificates granted or indorsed by the State board of education.	No. holding northern normal school certificates.	No. holding central normal school certificates.	No. holding State normal college certificates.	No. holding certificates granted by State university under provisions of sec. 4804 of comp. laws.	No. holding college certificates granted according to sec. 4805 of compiled laws.	No. holding city certificates of first grade.	No. holding city certificates of second grade.	No. holding city certificates of third grade.	No. holding county certificates.	Portion of superintendent's time given to supervision.
St. Clair	14	1	...	...	...	...	...	1	yes	...	yes	...	...	1	4	1	...	3	...	...	...	1-2
St. Ignace	51	2	1	...	1	2	...	1	yes	...	yes	...	...	...	20	3	...	14	11	...	...	all
St. Joseph	30	2	...	1	1	3	1	1	no	yes	yes	1	...	1	3	4	2	...	8	9	...	all
St. Louis	14	1	...	1	...	...	1	1	no	yes	yes	1	...	2	...	2	3	4	4	4	...	1-2
* Stanton	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Sturgis	13	1	...	1	1	1	...	1	yes	...	yes	1	...	...	4	...	...	...	...	...	8	3-7
† Tawas City	7	...	...	...	...	...	...	1	...	yes	...	1	...	...	...	...	...	...	...	...	6	1-8
Three Rivers	24	1	...	...	1	...	...	1	...	yes	...	...	...	...	4	3	...	4	...	9	...	all
Traverse City	49	2	...	2	1	...	1	1	no	yes	yes	...	...	2	30	1	1	1	14	...	...	all
West Bay City	62	...	...	...	...	...	...	...	...	...	yes	...	...	...	...	4	...	...	58	...	...	all
Wyandotte	24	1	...	...	1	...	...	1	yes	...	yes	5	...	...	10	1	2	1	4	1	...	all
Ypsilanti	31	2	...	...	1	...	...	1	yes	...	yes	...	...	...	24	2	...	...	...	...	4	...

* No report received.
† Under county supervision.

TABLE XX.

Receipts and expenditures at teachers' institutes for the calendar year 1901.

Counties.	Location.	Date.	Receipts.		Disbursements.				Totals.
			County funds.	State funds.	Compensation of instructors.	Expenses of instructors.	Compensation of local committee.	Other expenses.	
Totals			$9,244 12	$2,114 67	$8,074 62	$1,716 38	$452 88	$1,114 91	$11,358 79
Alcona	Harrisville	March 18-22	$12 00	$63 79	$46 36	$23 18	$5 00	$1 25	$75 79
Allegan	Allegan	March 29-30	56 53	.....	25 00	9 78	2 00	19 75	56 53
	Saugatuck	November 28-30	75 41	.....	50 00	11 09	.....	14 32	75 41
Alpena	Alpena	August 5-14	59 00	100 00	112 00	34 00	8 00	5 00	159 00
Antrim	Bellaire	August 5-14	60 00	74 00	104 00	12 50	8 00	9 50	134 00
Arenac	Standish	May 6-10	52 00	30 50	60 00	9 00	5 00	8 50	82 50
Baraga	L'Anse	October 22-24	21 50	87 11	60 00	37 76	3 00	7 85	108 61
Barry	Hastings	July 29-August 9	216 20	.....	190 00	6 20	10 00	10 00	216 20
Bay	Bay City	August 29-31	177 46	.....	115 00	22 48	3 00	36 98	177 46
Benzie	Benzonia	January 17-19	42 50	63 96	55 00	33 01	5 00	13 45	106 46
Berrien	Benton Harbor	March 22-24	155 58	.....	115 00	35 58	5 00	.....	155 58
	Niles	August 5-14	232 20	.....	176 00	31 55	8 00	16 65	232 20
Calhoun	Marshall	July 29-August 2	108 38	.....	85 00	7 88	5 00	10 50	108 38
Cass	Cassopolis	August 5-14	143 77	.....	112 00	10 77	8 00	13 00	143 77
Charlevoix	Charlevoix	August 5-14	90 00	63 20	120 00	22 20	8 00	3 00	153 20
Cheboygan	Cheboygan	November 29-30	86 00	.....	45 00	33 10	3 00	4 90	86 00
Chippewa	Sault Ste. Marie	April 11-13	84 00	43 55	75 00	44 55	5 00	3 00	127 55
Clare	Farwell	November 6-8	68 00	14 75	65 00	5 00	6 00	6 75	82 75
Clinton	St. Johns	May 31-June 1	107 49	.....	75 00	16 34	2 00	14 15	107 49
Crawford	Grayling	May 23-25	21 00	58 09	60 00	11 84	3 00	4 25	79 09
Delta	Escanaba	Oct. 31-Nov. 2	82 63	.....	68 00	9 63	5 00	.....	82 63
Dickinson	Iron Mountain	September 27-28	50 00	71 43	60 00	48 61	2 00	10 82	121 43
Eaton	Bellevue	Jan. 31-Feb. 2	97 79	.....	65 00	13 47	5 00	14 32	97 79
Emmet	Harbor Springs	April 3-5	58 00	20 00	45 00	22 00	3 00	8 00	78 00
Genesee	Flint	August 19-23	132 21	.....	100 00	16 71	5 00	10 50	132 21
Gladwin	Gladwin	August 5-14	33 00	100 00	98 09	23 91	7 00	4 00	133 00
Gogebic	Ironwood	October 3-5	91 50	43 90	90 00	42 40	3 00	.....	135 40
Grand Traverse	Traverse City	August 5-14	84 00	59 00	114 00	18 60	8 00	2 40	143 00
Gratiot	Ithaca	August 5-14	200 80	.....	162 00	17 30	8 00	13 50	200 80
Hillsdale	Hillsdale	August 5-14	206 00	.....	168 00	10 40	8 00	19 60	206 00
Houghton and Keweenaw	Hancock	October 23-24	100 05	.....	70 00	10 30	8 00	11 75	100 05
Huron	Bad Axe	Oct. 31-Nov. 2	100 63	.....	65 00	18 08	5 80	11 75	100 63

TABLE XX.—Concluded.

Counties.	Location.	Date.	Receipts.		Disbursements.				Totals.
			County funds.	State funds.	Compensation of instructors.	Expenses of instructors.	Compensation of local committee.	Other expenses.	
Ingham	Mason	August 26-28	$139 85		$95 00	$22 40	$5 00	$17 45	$139 85
Ionia	Ionia	February 15-16	92 08		65 00	16 08	3 00	8 00	92 08
Iosco	Tawas City	August 5-14	37 00	$66 35	93 00	10 35			103 35
Iron	Crystal Falls	November 8-9	44 00	33 78	55 00	11 58	4 00	7 20	77 78
Jackson	Jackson	May 2-4	148 29		85 00	22 55	3 00	37 74	148 29
	Jackson	June 24-July 5	171 60		120 00		10 00	41 60	171 60
Kalamazoo	Kalamazoo	July 29-August 9	264 70		220 00	20 70	10 00	14 00	264 70
Kalkaska	Kalkaska	August 19-23	64 50	54 76	75 00	17 76	5 00	21 50	119 26
Kent	Grand Rapids	August 19-23	142 68		125 00	9 08		8 60	142 68
	Ada	April 26-27	37 90		30 00	7 90			37 90
	Grand Rapids	October 12	27 50		25 00	2 50			27 50
Keweenaw with Houghton									
Lake	Luther	July 29-August 2	42 50	75 00	75 00	26 41	5 00	11 09	117 50
Lapeer	Lapeer	August 19-23	111 48		75 00	13 93	5 00	17 55	111 48
Leelanau	Northport	August 5-14	36 00	100 00	93 42	20 96	6 58	15 04	136 00
Lenawee	Adrian	Nov. 7-9	109 02		50 00	9 17	3 00	46 85	109 02
Livingston	Howell	August 5-14	167 53		136 00	15 53	8 00	8 00	167 53
Mackinac	St. Ignace	Oct. 28-Nov. 1	40 00	88 19	70 00	37 24	5 00	15 95	128 19
Macomb	Mt. Clemens	February 22-23	107 50		55 50	35 50		16 50	107 50
	Utica	December 5-6	70 55		45 00	5 30	4 00	16 25	70 55
Manistee	Manistee	January 10-13	111 38		55 00	32 84	3 50	20 04	111 38
	Manistee	December 5-7	131 40		75 00	23 65	6 00	26 75	131 40
Marquette	Marquette	September 27-28	273 98		175 00	77 23	5 00	16 75	273 98
Mason	Ludington	August 5-14	86 00	54 35	106 00	18 35	8 00	8 00	140 35
Mecosta	Big Rapids	November 29-30	130 24		90 00	20 24	2 00	18 00	130 24
Menominee	Menominee	July 29-August 14	105 00	43 60	118 00	17 60		13 00	148 60
Midland	Midland	Oct. 31-Nov. 2	90 50	6 00	65 00	15 25	3 00	13 25	96 50
Missaukee	Lake City	August 26-30	35 00	65 00	75 00	18 00	5 00	2 00	100 00
Monroe	Monroe	August 5-14	132 90	64 00	164 00	24 65	8 00	25	196 90
	Dundee	December 7	6 55		6 55				6 55
Montcalm	Greenville	July 15-August 2	329 49	60 00	340 00	24 49	15 00	10 00	389 49
Montmorency	Atlanta	October 10-12	19 00	49 90	44 00	19 90	3 00	2 00	68 90
Muskegon	Muskegon	August 5-14	129 00	30 00	114 00	17 74	16 00	11 26	159 00
Newaygo	White Cloud	July 22-August 2	125 37	50 00	140 00	18 13	10 00	7 24	175 37
Oakland	Pontiac	August 5-14	206 38		164 00	14 38	8 00	20 00	206 38
Oceana	Pentwater	August 5-14	84 00	57 10	115 75	17 35	8 00		141 10
Ogemaw	West Branch	October 24-26	58 50	31 00	65 00	16 50	3 00	5 00	89 50

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TABLE XXI.

Local committees, conductors and instructors at teachers' institutes for the calendar year 1901.

Counties.	Term.	Local committees.	Conductors.	Instructors.	Instructors.	Instructors.
Alcona	5 days	L. Frederick	A. Hamlin Smith	W. H. Sanborn.		
Allegan	2 days	J. E. McDonald	S. B. Laird.			
	3 days	P. A. Latta	G. J. Edgcumbe	A. Hamlin Smith.		
Alpena	8 days	James A. Case	A. F. Doyle	F. A. Bacon.		
Antrim	8 days	H. M. Coldren	J. M. Tice	F. C. Stillson.		
Arenac	5 days	Julia Inglis	A. Hamlin Smith.	F. J. Mellencamp.		
Baraga	3 days	M. J. McKanna	A. Hamlin Smith.	Irene Louise Getty		
Barry	10 days	J. C. Ketchum	C. L. Bemis	E. J. Edger	C. G. Wade.	
Bay	3 days	C. W. Hitchcock	F. A. Barbour	Adella Jackson	C. T. McFarlane	John O. Reed.
Benzie	3 days	M. S. Gregory	H. R. Pattengill	Lois Wilson.		
Berrien	3 days	C. D. Jennings	C. T. Grawn	Arnold Tompkins.	C. N. Kendall.	
	8 days	C. D. Jennings	E. T. Austin	G. J. Edgcumbe	Carl H. Smith.	
Calhoun	5 days	Ernest Burnham	A. Hamlin Smith.	Myra B. True	Kathryn Corrigan.	
Cass	8 days	W. H. C. Hale	W. E. Conklin	F. E. Knapp.		
Charlevoix	8 days	A. W. Chew	W. L. Shuart	W. V. Sage.		
Cheboygan	3 days	E. W. Baker	W. N. Ferris	George W. Loomis		
Chippewa	3 days	T. R. Easterday	W. C. Hewitt	R. Clyde Ford.		
Clare	3 days	Asa Aldrich	C. T. Grawn	George W. Loomis		
Clinton	2 days	R. M. Winston	H. R. Pattengill	W. N. Ferris	Belle Waldo.	
Crawford	3 days	Flora Marvin	H. R. Pattengill	R. D. Bailey.		
Delta	3 days	P. R. Legg	D. B. Waldo	E. L. Parmenter.		
Dickinson	3 days	E. L. Parmenter	W. N. Ferris	W. H. Cheever.		
Eaton	2 days	C. G. Wade	C. T. Grawn	Alice Marsh.		
Emmet	3 days	H. S. Babcock	C. O. Hoyt	F. M. Churchill.		
Genesee	5 days	J. H. Tyler	C. B. Hall	Nora Clark	W. A. Morse.	
Gladwin	8 days	F. E. Armstrong	A. L. Marvin	W. N. Burke.		
Gogebic	3 days	L. L. Wright	F. W. Cooley	Alice Harris	Helen M. Jordan.	
Grand Traverse	8 days	Nettie C. Gray	J. H. Kaye	K. Mae Bennett.		
Gratiot	8 days	C. F. Pike	Ben Bennett	Margaret Wakelee	Jas. E. Mitchell.	
Hillsdale	8 days	C. P. Hulce	A. Hamlin Smith.	Abigail Lynch	S. J. Gier.	
Houghton and Keweenaw	2 days	F. M. Bradshaw / William Bath	D. B. Waldo	F. W. Cooley	Alice Harris.	
Huron	3 days	D. Karcher	S. B. Laird	Margaret E. Wise.		
Ingham	3 days	A. G. Wilson	A. Hamlin Smith.	G. J. Edgcumbe	C. E. Holmes.	
Ionia	2 days	L. A. Burhans	W. N. Ferris	C. T. McFarlane.		
Iosco	8 days	J. A. Campbell	C. M. Jansky	Fannie I. Allen.		
Iron	2 days	John F. Mason	E. C. Thompson	D. B. Waldo.		
Jackson	3 days	F. M. Harlow	Charles McKenny.	Abigail Lynch	Meda Hess.	
	10 days	F. M. Harlow	A. B. Stevens	C. D. Livingston.		
Kalamazoo	10 days	J. W. Hazard	George W. Loomis	E. P. Clarke	Jessie Noyes.	
Kalkaska	5 days	Irene Louise Getty	M. F. Scott	Frances Burt.		

Kent	2 days	G. T. Chapel	S. B. Laird	A. L. Marvin.		
	5 days	A. R. Zimmer	E. A. Carpenter	A. G. Randall	A. J. Ladd.	
	1 day	W. H. Elson	A. E. Winship			
Keweenaw with Houghton.						
Lake	5 days	E. G. Johnson	W. F. Lewis	Carl H. Smith.		
Lapeer	5 days	W. Frank Laughlin	W. J. McKone	George W. Loomis		
Leelanau	8 days	J. O. Duncan	C. H. Horn	E. C. Maxwell.		
Lenawee	3 days	M. W. Hensel	S. B. Laird	Margaret E. Wise.		
Livingston	8 days	N. Knoihuyzen	E. A. Carpenter	I. A. Beddow.		
Mackinac	5 days	W. H. Lewis	A. Hamlin Smith.	Irene Louise Getty		
Macomb	2 days	R. J. Crawford	George W. Loomis	Florence Marsh.		
	2 days	O. D. Thompson	S. B. Laird	Abbie Roe.		
Manistee	3 days	Mrs. L. E. W. Hall	W. N. Ferris	H. R. Pattengill.		
	3 days	H. J. Leighton	H. R. Pattengill	C. T. Grawn.		
Marquette	3 days	F. D. Davis	F. D. Davis	H. R. Pattengill.	John W. Cook.	Maude Summers. Flora L. Mowbray.
Mason	8 days	C. A. Rinehart	E. D. Palmer	Mrs. Nettie Brown		
Mecosta	2 days	A. B. Lightfoot	H. R. Pattengill	Lucy A. Sloan	Florence Marsh.	
Menominee	13 days	Jesse Hubbard	E. L. Parmenter.			
Midland	3 days	Harry Mustard	J. K. Osgerby	Lois Wilson.		
Missaukee	5 days	Ezra S. Hall	H. T. Blodgett	Albert T. Cook.		
Monroe	8 days	A. C. Marvin	F. J. Tooze	Sibyl Robinson	John W. Welch.	
	1 day	A. C. Marvin	A. C. Marvin	W. D. Henderson.		
Montcalm	15 days	Eugene D. Straight	E. F. Waldo	Mary L. Hinsdale.	Mary L. Berkey.	
Montmorency	3 days	S. H. Knisley	George W. Loomis	S. H. Knisley.		
Muskegon	8 days	H. B. Carr	R. D. Briggs	F. J. Hendershot.		
Newaygo	10 days	A. G. Dye	I. B. Gilbert	Katheron Shupe.		
Oakland	8 days	H. S. Elliott	G. A. McGee	Helen R. Gardner.	R. B. Dean.	
Oceana	8 days	Vesta B. Smith	C. E. Holmes	W. D. Sterling.		
Ogemaw	3 days	Ben Bennett	George W. Loomis	C. E. Larzelere.		
Osceola	3 days	J. H. Thompson	H. R. Pattengill	C. T. McFarlane.		
	1 day	J. H. Thompson	C. T. Grawn.			
	2 days	J. H. Thompson	W. H. Cheever	Lucy A. Sloan.		
Oscoda	5 days	Sim J. Lewis	A. Hamlin Smith.			
Otsego	3 days	R. D. Bailey	H. R. Pattengill	Abigail Lynch.		
Presque Isle	5 days	E. Erskine	R. D. Bailey			
	5 days	E. Erskine	Fred L. Keeler	Irene Louise Getty		
Saginaw	3 days	J. C. Nafe	W. N. Ferris	B. W. Peet	H. W. McIntosh.	
St. Clair	8 days	R. S. Campbell	C. T. Grawn	W. F. Lewis	Mary L. Berkey.	
St. Joseph	8 days	Lewis E. Miller	Webster Cook	W. C. Hull	Lucy Bettes.	
Sanilac	20 days	C. G. Putney	C. H. Gurney	J. H. Hands.		
Schoolcraft	5 days	Beulah Morseman	E. C. Thompson	L. F. Anderson.		
Shiawassee	3 days	O. L. Bristol	W. J. McKone	Geo. R. Berkaw	Fannie I. Allen.	
Tuscola	3 days	H. P. Bush	S. B. Laird	R. E. Barbour	C. W. Hitchcock.	
Van Buren	8 days	E. A. Aseltine	F. A. Barbour	C. I. Collins	Jean Dawson.	
Washtenaw	2 days	W. N. Lister	S. B. Laird	C. O. Hoyt.		
	5 days	C. E. Foster	F. J. Tooze	M. W. Wisner.		
Wayne	1 day	E. W. Yost	E. W. Yost	C. T. McFarlane	W. N. Ferris.	
	3 days	E. W. Yost	W. N. Ferris	H. R. Pattengill	Dimon H. Roberts.	

TABLE XXII.

Enrollment at teachers' institutes for the calendar year 1901.

Counties.	Number of teachers required to supply schools.	Number enrolled.			Kinds and grades of certificates held by members.										Number without experience in teaching.	Number having received normal instruction.	Average attendance each half day.	Number of legally qualified teachers in county.	Percentage of teachers in county attending institutes.
		Men.	Women.	Total.	State.	Normal.	First.	Second.	Third.	City.	University.	College.	Kindergarten.	Special.					
Totals	13,240	1,814	7,753	9,567	152	423	235	2,425	2,396	420	25	39	2	62	2,018	1,407	6,571	*15,183	.....
Alcona	31	23	40	63	.....	1	5	10	17	.....	.....	.....	.....	.....	30	5	54	33	100
†Alger	26	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	36	.....
‡Allegan	252	30	120	150	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	282	.....
		28	77	103	.....	.....	3	37	19	.....	.....	4	.....	.....	40	4	100		22
Alpena	60	7	85	92	1	1	1	15	37	4	.....	.....	.....	.....	52	1	84	88	67
Antrim	107	10	24	34	.....	.....	2	12	9	.....	.....	.....	.....	.....	13	3	23	97	23
‡Arenac	54	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	67	.....
Baraga	21	9	22	31	2	.....	2	7	10	.....	.....	.....	.....	3	10	9	29	36	66
Barry	183	21	90	111	1	4	1	38	32	.....	.....	.....	.....	1	15	8	81	227	33
Bay	255	19	96	115	2	8	3	38	19	45	.....	.....	.....	.....	9	8	93	252	45
Benzie	74	51	109	160	.....	7	4	22	30	.....	1	.....	.....	.....	92	11	142	.....	.....
Berrien	282	34	72	106	.....	14	4	26	43	.....	.....	.....	.....	.....	19	20	.....	346	25
		17	85	102	.....	2	4	44	29	.....	.....	.....	.....	.....	16	7	.....		36
†Branch	181	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	214	.....
Calhoun	309	19	87	106	2	1	1	39	32	.....	.....	.....	.....	.....	30	17	82	330	22
Cass	155	22	62	84	.....	1	.....	27	26	2	.....	1	.....	.....	30	8	52	184	30
Charlevoix	95	16	61	77	.....	2	2	29	28	.....	.....	.....	.....	1	16	5	58	125	49
Cheboygan	89	20	76	96	3	6	4	45	26	2	.....	.....	.....	2	7	12	79	114	77
Chippewa	99	13	72	85	3	12	6	16	23	9	.....	.....	.....	3	19	78	.....	102	70
Clare	65	10	49	59	1	6	.....	23	25	.....	2	2	1	.....	4	11	57	98	61
Clinton	168	36	123	159	3	3	6	59	50	.....	.....	.....	.....	3	37	23	133	209	59
Crawford	29	15	47	62	.....	3	2	11	6	.....	.....	.....	.....	2	41	7	52	30	8
Delta	77	6	64	70	2	3	4	24	20	.....	.....	.....	.....	1	5	30	41	112	48
Dickinson	71	7	82	89	10	20	5	19	18	8	.....	.....	.....	.....	3	56	80	91	87
Eaton	219	33	114	147	.....	2	1	38	63	.....	.....	4	.....	1	38	20	116	228	46
Emmet	105	8	35	43	3	6	1	7	21	.....	.....	.....	.....	.....	5	6	35	120	31
Genesee	263	17	71	88	1	3	2	41	34	.....	.....	.....	.....	1	6	9	56	328	25
Gladwin	46	4	57	61	1	.....	.....	8	12	.....	.....	.....	.....	1	39	2	49	49	44

Gogebic	83	10	117	127	16	8	12	28	18	4	4	8	.....	6	7	15	125	87	100
Grand Traverse	123	14	67	81	1	4	2	32	33	1	.....	.....	.....	.....	19	13	50	187	39
Gratiot	177	21	66	87	2	1	1	19	46	.....	.....	.....	.....	1	29	8	62	190	36
Hillsdale	215	27	136	163	2	5	4	43	77	1	.....	3	.....	.....	44	27	110	300	45
‡Houghton and Keweenaw	302	20	280	300	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	275	284	.....
Huron	154	51	102	153	3	21	7	58	45	.....	.....	.....	.....	.....	19	19	.....	162	52
Ingham	255	20	88	108	.....	4	3	52	38	.....	.....	.....	.....	2	30	8	82	321	20
Ionia	224	38	186	224	26	20	9	70	55	5	.....	.....	.....	.....	63	27	188	221	83
Iosco	57	3	48	51	1	1	1	17	14	.....	.....	.....	.....	.....	22	3	7	60	56
Iron	43	3	46	49	3	10	1	16	17	.....	.....	.....	1	.....	.....	23	44	.....	.....
†Isabella	131	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	190	.....
Jackson	273	41	177	218	4	21	6	49	55	53	.....	.....	.....	3	27	45	192	314	60
		6	36	42	.....	2	.....	11	14	.....	.....	.....	.....	.....	15	2	29		8
Kalamazoo	276	12	102	114	.....	7	.....	30	44	.....	.....	.....	.....	.....	32	16	81	361	22
Kalkaska	57	12	47	59	1	2	2	10	13	.....	.....	.....	.....	.....	35	4	34	67	41
‡Kent	637	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
		23	163	186	1	1	6	53	82	1	.....	.....	.....	1	41	7	145	693	20
		123	575	698	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	425		.....
Keweenaw with Houghton	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	13	.....
Lake	49	3	39	42	.....	1	1	7	12	.....	.....	.....	.....	.....	23	2	37	48	43
Lapeer	185	16	60	76	2	2	.....	31	33	.....	.....	.....	.....	.....	17	5	46	230	29
Leelanau	66	6	23	29	.....	.....	2	8	13	.....	.....	.....	.....	.....	5	1	23	71	32
Lenawee	295	62	216	278	3	21	2	97	86	41	6	10	.....	3	9	39	.....	376	71
Livingston	166	36	104	140	3	6	1	53	36	.....	.....	.....	.....	1	20	21	71	180	55
†Luce	15	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	30	.....
Mackinac	30	8	48	56	.....	1	.....	11	17	.....	.....	.....	.....	.....	22	5	51	53	54
Macomb	175	50	104	154	3	11	2	45	29	9	.....	.....	.....	1	53	14	131	216	46
		34	104	138	1	5	5	46	27	3	1	.....	.....	.....	48	15	118		40
Manistee	154	35	154	189	10	2	13	23	18	8	.....	.....	.....	.....	85	29	165	198	37
		24	131	155	1	3	14	45	25	7	2	.....	.....	1	27	19	105		50
Marquette	170	29	161	181	.....	19	2	11	9	120	2	2	.....	7	2	109	164	199	86
Mason	111	12	75	87	1	1	.....	16	34	5	.....	.....	.....	.....	31	8	64	120	47
Mecosta	136	38	130	168	.....	.....	2	40	38	4	.....	.....	.....	.....	78	9	148	174	48
Menominee	112	7	77	84	.....	.....	.....	18	31	.....	.....	.....	.....	.....	36	8	68	174	28
‡Midland	96	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	121	.....
Missaukee	64	10	51	61	1	2	1	19	24	.....	.....	.....	.....	.....	19	11	36	78	60
Monroe	175	29	104	133	.....	4	2	53	62	.....	.....	.....	.....	.....	28	27	104	221	55
		20	80	100	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	90		.....
Montcalm	199	13	69	82	1	.....	.....	17	31	.....	.....	.....	.....	.....	24	1	59	250	20
Montmorency	11	15	29	44	1	5	.....	6	10	.....	.....	2	.....	.....	20	35	.....	41	53
Muskegon	227	14	86	100	2	1	5	28	36	.....	.....	.....	.....	.....	3	22	79	267	26
Newaygo	139	12	39	51	.....	1	2	26	15	.....	.....	.....	.....	.....	6	7	23	180	24
Oakland	299	12	104	116	.....	1	.....	40	52	.....	.....	.....	.....	.....	23	11	74	373	24
Oceana	110	17	56	73	3	.....	4	16	32	.....	.....	.....	.....	4	16	3	51	150	39

* That this column is frequently less than the first, is due to the fact that some counties do not count city teachers.
† No institute held. ‡ No report received.

TABLE XXII.—Concluded.

Counties.	Number of teachers required to supply schools.	Number enrolled.			Kinds and grades of certificates held by members.										Number without experience in teaching.	Number having received normal instruction.	Average attendance each half day.	Number of legally qualified teachers in county.	Percentage of teachers in county attending institutes.
		Men.	Women.	Total.	State.	Normal.	First.	Second.	Third.	City.	University.	College.	Kindergarten.	Special.					
Ogemaw	49	9	57	66	.....	.....	2	25	13	.....	.....	.....	.....	.....	26	2	59	53	75
†Ontonagon	32	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	33	.....
Osceola	126	33	106	139	5	15	5	42	25	.....	.....	.....	.....	1	38	130	.....	137	67
		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		.....
		23	92	115	3	24	3	26	23	.....	.....	1	.....	1	32	30	111		59
Oscoda	12	4	19	23	.....	.....	.....	1	7	.....	.....	.....	.....	1	14	19	.....	20	45
Otsego	51	11	44	55	2	7	1	16	17	.....	.....	.....	.....	1	10	11	51	48	91
†Ottawa	226	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	291	.....
Presque Isle	44	12	32	44	4	1	1	9	13	.....	.....	.....	.....	1	11	6	34	40	9
		17	29	46	.....	2	.....	12	11	.....	.....	.....	.....	2	.....	4	41		9
†Roscommon	16	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	7	.....
Saginaw	408	37	143	180	3	2	9	62	39	3	.....	.....	.....	.....	48	24	116	472	25
St. Clair	286	27	174	201	1	3	2	62	91	19	.....	.....	.....	.....	54	28	144	268	66
St. Joseph	194	25	88	113	2	6	5	42	30	2	.....	.....	.....	.....	26	23	55	229	37
Sanilac	182	25	42	67	1	1	.....	26	27	.....	.....	.....	.....	.....	27	10	48	179	45
Schoolcraft	34	6	50	56	1	3	1	24	9	3	3	.....	.....	1	6	1	46	52	80
Shiawassee	207	19	92	111	.....	3	1	53	43	1	.....	.....	.....	.....	27	15	74	206	49
Tuscola	184	42	141	183	1	4	16	73	62	.....	1	1	.....	.....	25	19	158	204	77
Van Buren	220	23	94	117	.....	.....	1	44	33	.....	.....	.....	.....	.....	47	5	99	264	29
Washtenaw	304	29	139	168	2	23	2	45	39	57	.....	.....	.....	.....	22	26	126	384	43
		3	77	80	.....	1	.....	23	36	1	.....	.....	.....	.....	19	13	69		15
Wayne	1,223	35	110	145	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	140	1,128	.....
		44	124	168	.....	30	10	61	28	1	3	.....	.....	5	32	63	148		10
†Wexford	129	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	170	.....

† No institute held. ‡ No report received.

TABLE XXIII.

County boards of school examiners for 1900–1901.

(The first named in each county is commissioner.)

Counties.	Name.	Address.	Occupation.
Alcona	W. H. Sanborn	Harrisville	Teacher.
	Margaret LaChapelle	Harrisville	Teacher.
	Ellsworth G. Holmes	Lodge	Teacher.
Alger	Flora McLachlan	Grand Marais	Teacher.
	H. G. Warne	Munising	Teacher.
	T. H. Ostrander	Onota	Teacher.
Allegan	J. E. McDonald	Allegan	Teacher.
	Charles F. Bacon	Fennville	Teacher.
	Nellie Lewis Wilder	Otsego	Teacher.
Alpena	James A. Case	Alpena	Farmer.
	Egbert H. Fox	Long Rapids	Teacher.
	Fred P. Smith	Alpena	Student.
Antrim	M. H. Coldren	Bellaire	
	George E. Cabanis	Bellaire	Teacher.
	S. J. Wheeler	Alba	Teacher.
Arenac	Julia A. Inglis	Sterling	Teacher.
	George H. Glasure	Maple Ridge	Teacher.
	John Kennedy	Au Gres	Teacher.
Baraga	M J McKanna	Baraga	Teacher.
	Helen O'Connor	L'Anse	Teacher.
Barry	J. C. Ketcham	Hastings	Teacher.
	S. W. Smith	Woodland	F'r and tch'r.
	E. J. Edger	Hastings	Teacher.
Bay	C. W. Hitchcock	Bay City	Attorney.
	John B. Laing	Munger P. O.	Teacher.
	W. Arthur Collins	West Bay City	Teacher.
Benzie	M. S. Gregory	Benzonia	Teacher.
	W. S. Gillett	South Frankfort	Teacher.
	Louis Wood	Honor	Teacher.
Berrien	C. D. Jennings	St. Joseph	Teacher.
	C. E. Swem	New Buffalo	Teacher.
	W. N. Marsh	Coloma	Teacher.
Branch	M. W. Wimer	Coldwater	Teacher.
	O. S. Bathrick	Girard	Teacher.
	P. B. Wessel	Batavia	Teacher.
Calhoun	Ernest Burnham	Marshall	Teacher.
	A. J. Flint	Tekonsha	Teacher.
	F. D. Miller	Burlington	Teacher.
Cass	William H. C. Hale	Cassopolis	Teacher.
	John Finley	Dowagiac	Teacher.
	Clifford M. Brady	Edwardsburg	Teacher.
Charlevoix	A. W. Chew	Bay Shore	Farmer.
	J. M. Tice	Charlevoix	Teacher.
	A. F. Milford	South Arm	Mfg. forem'n.
Cheboygan	E. W. Baker	Cheboygan	Teacher.
	George Irwin	Cheboygan	Teacher.
	J. F. Chambers	Cheboygan	Teacher.
Chippewa	T. R. Easterday	Sault Ste. Marie	Clergyman.
	C. E. Richmond	Sault Ste. Marie	Teacher.
Clare	Asa H. Aldrich	Clare	Teacher.
	C. B. Chaffee	Farwell	Teacher.
	Charles Stahl	Harrison	Merchant.
Clinton	Theo. H. Townsend	St. Johns	Teacher.
	E. M. Plunkett	Ovid	Supt. schools.
	J. B. Stone	De Witt	Machine agt.
Crawford	Henrietta Coventry	Grayling	Teacher.
	A. J. Graham	Grayling	Teacher.

TABLE XXIII.—CONTINUED.

Counties.	Name.	Address.	Occupation.
Delta	P. R. Legg	Gladstone	Teacher.
	Rose Headsten	Escanaba	Teacher.
	William J. Miller	Masonville	Teacher.
Dickinson	Edward L. Parmenter	Iron Mountain	
	L. E. Amidon	Iron Mountain	Supt. schools.
	E. P. Frost	Norway	Supt. schools.
Eaton	J. L. Wagner	Charlotte	Teacher.
	C. G. Wade	Bellevue	Teacher.
	Cynthia A. Green	Charlotte	Teacher.
Emmet	H. S. Babcock	Harbor Springs	Editor.
	H. N. Crandall	Ely	Teacher.
	E. A. Botsford	Petoskey	Tch'r and f'r.
Genesee	John J. Tyler	Davison	Teacher.
	Mary Lyon	Atlas	Teacher.
	Charles M. Elliott	Grand Blanc	Teacher.
Gladwin	F. E. Armstrong	Gladwin	Teacher.
	Peter F. McCormick	Gladwin	
	James E. Tobin	Gladwin	
Gogebic	L. L. Wright	Ironwood	Teacher.
	J. E. Butler	Bessemer	Teacher.
	A. E. Sterne	Bessemer	Ins. agent.
Grand Traverse	Nettie C. Gray	Traverse City	Teacher.
	Wilkey A. White	Fife Lake	Editor.
	Mrs. Addie A. Gibbs	Mayfield	Bookkeeper.
Gratiot	C. F. Pike	Ithaca	Teacher.
	M. E. Hull	St. Louis	Teacher.
	E. E. Fell	Ithaca	Teacher.
Hillsdale	C. P. Hulce	Hillsdale	Teacher.
	H. L. Howe	Hillsdale	Teacher.
	D. L. Clark	Frontier	Teacher.
Houghton	William Bath	Houghton	Accountant.
	A. E. Peterman	Calumet	Lawyer.
	Fred W. Jeffers	Atlantic Mine	Teacher.
Huron	David Kaercher	Sebewaing	Teacher.
	Edward Baskin	Ubly	Farmer.
	C. F. Hey	Kilmanagh	Teacher.
Ingham	A. G. Wilson	Mason	Teacher.
	George W. Harvey	Okemos	Teacher.
	Lewis Mixter	Williamston	Teacher.
Ionia	L. A. Burhans	Ionia	Teacher.
	George L. Jordan	Collins	Teacher.
	C. L. Bemis	Ionia	Teacher.
Iosco	J. A. Campbell	Whittemore	Teacher.
	William Gregory	East Tawas	Teacher.
Iron	Thomas Conlin	Crystal Falls	Editor.
	George D. Crippen	Crystal Falls	Merchant.
Isabella	H. A. Graham	Mt. Pleasant	Teacher.
	B. F. Duffy	Blanchard	Teacher.
	F. L. Keeler	Mt. Pleasant	Teacher.
Jackson	F. E. Schall	Concord	Teacher.
	Frank H. Brown	Brooklyn	Teacher.
	George Cain	Cedar Bank	Teacher.
Kalamazoo	J. W. Hazard	Kalamazoo	Teacher.
	B. R. Platt	Vicksburg	Teacher.
	E. C. Hambleton	Galesburg	Teacher.
Kalkaska	Irene Getty	Kalkaska	Teacher.
	E. L. Beebe	South Boardman	Teacher.
Kent	Arthur E. Zimmer	Kent City	Teacher.
	Carl M. Ferner	Byron	Teacher.
	L. T. Herman	Caledonia	Teacher.
Keweenaw	F. M. Bradshaw	Central Mine	Teacher.
	Mary Richards	Allouez	Teacher.
	Emma Sibilsky	Mohawk	Teacher.

TABLE XXIII.—CONTINUED.

Counties.	Name.	Address.	Occupation.
Lake	E. G. Johnson.	Luther	Teacher.
	Vivian Montgomery	Luther	Teacher.
Lapeer	W. Frank Laughlin	Lapeer	Teacher.
	O. La Bounty	North Branch	Teacher.
	C. H. Naylor	Imlay City	Teacher.
Leelanau	J. O. Duncan	Sutton's Bay	
	S. E. Blackwood	Leland	Teacher.
	E. F. Carr,	Empire	Teacher.
Lenawee	M. W. Hensel	Blissfield	Teacher.
	J. C. Howell	Blissfield	Teacher.
Livingston	N. Knoolhuizen	Fowlerville	Teacher.
	W. D. Sterling	Howell	Teacher.
	Dennis Kelleher	Fenton	Teacher.
Luce	Eva Beurmann	Munising	Teacher.
	W. L. Hays	Newberry	Minister.
	A. D. DeWitt	Newberry	Teacher.
Mackinac	W. H. Lewis	St. Ignace	Teacher.
	J. J. Thompson	St. Ignace	Hotel keeper.
	W. J. Fessant	Viola	Clerk.
Macomb	O. D. Thompson	Romeo	Teacher.
	E. R. Wilson	Washington	Teacher.
	A. E. Millett	Utica	Teacher.
Manistee	H. J. Leighton	Bear Lake	Teacher.
	Rev. George Crook	Bear Lake	Minister.
	M. S. Howes	Marilla	Farmer.
Marquette	F. D. Davis	Negaunee	Teacher.
	D. B. Waldo	Marquette	Teacher.
	J. F. Walker	Republic	Teacher.
Mason	C. A. Rinehart	Ludington	Teacher.
	F. A. Ewald	Custer	Teacher.
	Iva Downing	Ludington	Teacher.
Mecosta	A. B. Lightfoot	Big Rapids	Teacher.
	Don Harington	Millbrook	Teacher.
	C. R. Foster	Barryton	Teacher.
Menominee	Jesse Hubbard	Menominee	Teacher.
	C. M. Case	Hermansville	Teacher.
Midland	J. H. Mustard	Midland	Teacher.
	G. L. Jenner	Midland	Supt. schools.
	W. H. Buck	Coleman	Teacher.
Missaukee	E. S. Hall	Lake City	Teacher.
	Lena Goll	Lake City	Teacher.
	C. L. Jackson	Lake City	Teacher.
Monroe	A. C. Marvin	Monroe	Teacher.
	P. H. Marron	Monroe	Teacher.
	J. J. Kelley	Carleton	Teacher.
Montcalm	E. D. Straight	Stanton	Teacher.
	H. J. Wilson	Edmore	Teacher.
	A. M. Colegrove	Coral	Teacher.
Montmorency	S. H. Knisely	Hillman	Teacher.
	E. M. Hutchinson	Lewiston	Teacher.
	Mrs. W. D. Rice	Big Rock	Teacher.
Muskegon	H. B. Carr	Whitehall	Teacher.
	N. R. Dryer	Holton	Teacher.
	D. A. Seaman	Whitehall	Teacher.
Newaygo	A. G. Dye	White Cloud	Teacher.
	John Herwood	White Cloud	Lawyer.
	Carrie L. Carter	Newaygo	Teacher.
Oakland	H. S. Elliott	Oxford	Teacher.
	H. S. Gardner	Royal Oak	Teacher.
	H. H. Snowdon	Pontiac	Justice Peace
Oceana	Vesta B. Smith	Shelby	Teacher.
	Alfred Sundell	Shelby, R. F. D. No. 2	Teacher.
	L. J. Fairfield	Hesperia	Teacher.

TABLE XXIII.—CONCLUDED.

Counties.	Name.	Address.	Occupation.
Ogemaw	Ben Bennett	West Branch	Teacher.
	E. H. Woughter	West Branch	Undertaker.
	H. S. Karcher		Teacher.
Ontonagon	A. C. Adair	Rockland	Hotel keeper.
	Frank A. Stiles	Rubicon	Teacher.
	Ella A. Chamberlin	Ontonagon	Teacher.
Osceola	James H. Thompson	Evart	Teacher.
	Myron Jerome	Leroy	Teacher.
	George O. Roxburgh	Marion	Teacher.
Oscoda	Sim. J. Lewis	Mio	Teacher.
	Eliza Deyarmond	Mio	Teacher.
Otsego	R. D. Bailey	Gaylord	Teacher.
	Carrie G. Martindale	Gaylord	Housekeeper.
	Frank J. Shipp	Gaylord	Teacher.
Ottawa	Lewis P. Ernst	Coopersville	Teacher.
	Nelson Stanton	Forest Grove	Teacher.
Presque Isle	Edward Erskine	Rogers City	Physician.
	Theodore Hardies	South Rogers	Merchant.
	W. R. Caldwell	Tower	Teacher.
Roscommon	E. G. Payne	Roscommon	Druggist.
	Adelia McCrea	Roscommon	Teacher.
	Verna Blanchard	Roscommon	Teacher.
Saginaw	J. C. Nafe	Saginaw, W. S.	Teacher.
	J. E. McDonald	Buena Vista	Teacher.
	J. B. Griffin	Carrollton	Teacher.
St. Clair	R. S. Campbell	Port Huron	Teacher.
	W. F. Lewis	Port Huron	Teacher.
	E. T. Blackney	Capac	Teacher.
St. Joseph	L. E. Miller	Colon	Teacher.
	George DeLong	Three Rivers	Teacher.
	J. W. Laughlin	Fawn River	Teacher.
Sanilac	C. G. Putney	Sanilac Center	Teacher.
	George Meredith	Peck	Teacher.
	John H. Hands	Port Sanilac	Teacher.
Schoolcraft	Beulah Morseman	Manistique	Teacher.
	Carey W. Dunton	Manistique	Lawyer.
	Sherman Cornell	Manistique	Teacher.
Shiawassee	O. L. Bristol	Corunna	Teacher.
	H. E. Slocum	Ypsilanti	Student.
	Stella E. Potter	Bancroft	Teacher.
Tuscola	H. P. Bush	Caro	Teacher.
	J. F. Goodrich	Tuscola	Teacher.
	Fred Cartwright	Akron	Teacher.
Van Buren	E. A. Aseltine	Paw Paw	Teacher.
	J. G. Chamberlin	Decatur	Teacher.
	R. S. Howland	Decatur	Merchant.
Washtenaw	C. E. Foster	Ann Arbor	Teacher.
	D. R. Hoppe	Chelsea	Lawyer.
	Martin Cavanaugh	Ann Arbor	Lawyer.
Wayne	E. W. Yost	Trenton Home, Detroit office	Teacher.
	William Lightbody	Dragon St., Detroit	Teacher.
	Frank Cody	Delray	Teacher.
Wexford	C. C. Slemons	Sherman	Teacher.
	J. H. Kaye	Cadillac	Teacher.
	A. J. Chappell	Manton	Teacher.

TABLE XXIV.

General statistics of educational institutions compiled from reports of officers for the academic year 1900–1901.

Name of institution.	Location.	Name of president, superintendent or principal.	Date of organization.	Number of instructors.	Number of students or inmates during the year.	Number of students from Michigan.	Number of graduates at last commencement.	Whole number of graduates since founded.	Number of volumes in library.	Number of volumes added to library during year.
ESTABLISHED BY ACTS OF LEGISLATURE.										
Educational:										
Central State Normal School	Mt. Pleasant	Charles T. Grawn	1892	25	410	400	120	300	5,000	700
Michigan Agricultural College	Lansing	J. L. Snyder	1857	55	652	618	98	858	22,323	743
Michigan College of Mines	Houghton	F. W. McNair	1885	23	146	100	25	178	16,258	892
Michigan State Normal College	Ypsilanti	E. A. Lyman	1852	55	1,348	1,274	247	4,156	22,500	1,000
Northern State Normal School	Marquette	Dwight B. Waldo	1899	14	198	197	25	30	3,500	2,000
University of Michigan	Ann Arbor	James B. Angell	1837	233	3,712	2,144	764	17,789	155,524	10,899
Charitable:										
Industrial Home for Girls	Adrian	Lucy M. Sickels	1879	33	324	.....	.....	.....	1,418	618
Industrial School for Boys	Lansing	J. E. St. John	1855	*53	683	.....	.....	.....	1,500	.....
School for the Blind	Lansing	Warren C. Hull	1880	12	130	.....	5	.....	3,300	325
School for the Deaf	Flint	F. D. Clarke	1854	44	419	.....	15	1,319	3,863	194
State Public School	Coldwater	J. B. Montgomery	1874	*13	344	.....	.....	†1,109	2,388	.....
INCORPORATED UNDER ACT 39, LAWS OF 1855.										
Denominational Colleges:										
Adrian College	Adrian	G. B. McElroy	1859	15	164	85	19	508	6,500	50
Albion College	Albion	Samuel Dickie	1861	25	490	454	42	1,000	15,000	400
Alma College	Alma	A. F. Bruske	1887	23	259	249	10	67	17,000	300
Detroit College	Detroit	James D. Foley	1881	20	262	257	12	199	11,300	.....
‡Emmanuel Missionary College	Berrien Springs	E. A. Sutherland	.....	20	300	.....	.....	.....	3,500	100
Hillsdale College	Hillsdale	Charles H. Gurney	1855	15	341	243	18	987	9,861	387
Hope College	Holland	Gerrit J. Kollen	1866	14	180	180	15	300	15,000	.....
Kalamazoo College	Kalamazoo	A. Gaylord Slocum	1855	14	217	.....	23	305	7,116	172
Olivet College	Olivet	Willard G. Sperry	1859	23	268	232	21	526	27,500	500

* Including employes.
† Self-supporting.
‡ Formerly Battle Creek College.

TABLE XXIV.—CONCLUDED.

Name of institution.	Location.	Name of president, superintendent or principal.	Date of organization.	Number of instructors.	Number of students or inmates during the year.	Number of students from Michigan	Number of graduates at last commencement.	Whole number of graduates since founded.	Number of volumes in library.	Number of volumes added to library during year.
INCORPORATED UNDER ACT 39, LAWS OF 1855.										
Academies and Seminaries:										
Academy of the Ladies of the Loretto	Sault Ste. Marie	Mother M. Christina	1898	11	100	90	1	1	900	400
Academy of the Sacred Heart	Detroit	Madame Anna Hutton	1850	11	60	60	9	.....	3,000	50
Academy of the Sacred Heart	Grosse Pointe	Isabelle C. Gavin	1885	20	58	46	4	48	800	25
Akeley Institute	Grand Haven	George D. Gillespie	1889	9	25	18	4	49	1,000	10
Benzonia College	Benzonia	Charles W. Dunn	1901	7	96	96	4	.....	6,000	.....
Detroit Home and Day School	Detroit	Ella M. Liggett	1882	27	340	340	27	230	1,887	106
*Detroit School for Boys										
Detroit Seminary	Detroit	Mrs. E. F. Hammond / Miss L. C. Browning	1859	12	100	97	12	200	3,000	25
Detroit University School	Detroit	Russell A. Alger	1901	20	214	204	13	26	1,269	169
Holy Rosary Academy	Essexville	Mother Gonsalva	1892	4	41	38	.....	6	400	75
Michigan Female Seminary	Kalamazoo	John Gray	1855	11	75	69	1	.....	2,500	50
Michigan Military Academy	Orchard Lake	J. Sumner Rogers	1877	10	160	50	14	.....	9,000	50
Nazareth Academy	Nazareth	Sister M. Anthony Nolan	1897	12	54	38	1	2	5,300	300
Raisin Valley Seminary	Adrian	Jay Hoag	1895	3	38	37	8	161	503	2
St. Mary's Academy	Monroe	Mother M. Mechtildes	1890	20	241	194	9	92	3,327	143
St. Mary's School	Sault Ste. Marie	Rev. F. X. Renand	1898	6	404	404	.....	.....	500	.....
Seminary of the Felician Sisters	Detroit	Cajetana Jankiewicz	1882	2	88	22	10	101	1,642	39
Spring Arbor Seminary	Spring Arbor	David S. Warner	1873	5	103	77	7	156	600	5
Theological School, Christian Reformed Church	Grand Rapids	G. K. Hemkes	1876	7	72	52	6	76	1,250	250
Ursuline Academy	St. Ignace	Mother M. Angela	1899	6	100	100	1	1	600	50
Professional Schools:										
Detroit College of Law	Detroit	Philip T. Van Zile	1893	20	171	164	36	278	10,000	.....
Detroit College of Medicine	Detroit	S. D. Miller	1885							
Department of Dental Surgery				24	156	104	34	176	.....	.....
Medicine				65	224	143	45	1,391	5,000	30
Pharmacy				8	41	31	18	103	25	.....
Detroit Homeopathic College	Detroit	C. C. Miller	1874	30	41	28	4	10	.....	.....
Grand Rapids Medical College	Grand Rapids	Clarence H. White	1897	31	67	52	16	45	1,700	.....
Michigan College of Medicine and Surgery	Detroit	Hal C. Wyman	1888	30	75	55	25	350	.....	.....
Saginaw Valley Medical College	Saginaw	L. W. Bliss	1896	30	102	75	24	94	.....	.....
†Sprague Correspondence School of Law	Detroit									

Schools with Normal and Business Course:									
Armstrong Business School	Hillsdale	Charles M. Armstrong	1900	4	106	100	18	40	30	5
Bay City Business College	Bay City	R. R. Lane	1898	5	217	206	2	5	20	.....
Benton Harbor College	Benton Harbor	G. J. Edgcumbe	1892	16	312	308	27	316	2,600	50
Cleary's Business College	Ypsilanti	P. R. Cleary	1891	9	325	.....	53	.....	525	.....
Fenton Normal School and Commercial College	Fenton	C. H. Clemmer	1898	6	210	210	13	53	356	.....
Ferris Institute	Big Rapids	Woodbridge N. Ferris	1884	14	1,400	1,350	55	354	800	100
Grand Rapids Business University	Grand Rapids	A. S. Parish	1897	3	293	293	.....	.....	.....	.....
†Gutchess School	Detroit	.....	.....	.....	.....	.....	.....	.....	.....	.....
International Business College	Saginaw	F. H. Harper	1896	6	248	248	6	23	.....	.....
Jackson Business University	Jackson	Cyrus W. Field	1901	3	57	57	.....	.....	.....	.....
Lansing Business University	Lansing	H. J. Beck	1897	3	93	90	2	12	.....	.....
Ludington Business College	Ludington	W. H. Martindill	1898	2	78	77	24	114	85	12
†Michigan Business and Normal College Company	Battle Creek	.....	.....	.....	.....	.....	.....	.....	.....	.....
Three Rivers Business Academy and Normal School	Three Rivers	Charles H. Sage	1899	4	77	77	.....	.....	240	15

* United with Detroit University School during year.
† No report received.

TABLE XXV.

Financial statistics of educational institutions compiled from reports of officers for the academic year 1900–1901.

Name of institution.	Annual cost of tuition per student.	Average cost of board per week.	Total average annual cost to each student.	Total aver. annual cost of each student to the State.	Estimated value of grounds, buildings, library, apparatus, etc.	Amount of productive funds.	Income from productive funds.	Amount of legislative appropriation for 1900.	Receipts from tuition fees during the year.	Receipts from all other sources.	Current expenses for the year.	Expenses for permanent improvement.	Liabilities.
ESTABLISHED BY ACTS OF LEGISLATURE.													
Educational:													
Central State Normal School	$9 00	$2 50	$125 00	$50 00	$80,000 00			$25,000 00	$2,000 00		$27,000 00	$43,000 00	
Michigan Agricultural College		2 30	135 25		620,000 00	$832,608 09	$57,621 30	74,000 00	330 00	$124 885 53	130,188 90	72,781 91	
Michigan College of Mines	25 00 / *150 00	6 25	450 00 / *575 00	299 31	78,940 64			43,750 00	7,895 00	5,949 08	57,594 08		
Michigan State Normal College	9 00	2 00	150 00	55 00	336,813 52			68,500 00	8,462 50	1,372 35	87,296 51	3,700 00	
Northern State Normal School	9 00	3 75	154 00	102 27	54,500 00			65,315 00	657 00	3,160 00	20,967 00	5,000 00	
University of Michigan	55 00	4 50	340 00		2,100,000 00	545,946 00	38,500 00		202,788 79	329,132 17	519,342 49	63,648 54	$4,300 00
Charitable:													
Industrial Home for Girls		70		120 00	203,335 51			48,980 34		3,966 85	50,649 29		
Industrial School for Boys		54		112 00	260,000 00			60,000 00		6,872 00	68,395 00	2,500 00	
School for the Blind				237 54	148,747 42			30,700 00		3,697 71	30,880 59	10,000 00	
School for the Deaf		1 05		197 36	515,846 71			78,750 00		9,815 02	91,770 54	17,375 90	
State Public School		63		27 00	250,000 00			31,000 00		4,941 45	31,000 00	2,766 00	
INCORPORATED UNDER ACT 39, LAWS OF 1855.													
Denominational Colleges:													
Adrian College	45 00	2 50	171 00		125,000 00	66,307 00	3,032 00		7,096 68	6,417 92	18,812 46	1,041 05	60,313 15
Albion College	24 00	3 00	120 00		175,000 00	255,000 00	14,421 81		15,000 00	17,000 00	38,540 00		95,000 00
Alma College	30 00	2 00	140 00		301,700 00	224,700 00	11,878 00		5,521 00	1,048 00	18,152 00	70,000 00	
Detroit College	40 00	1			170,000 00				6,800 00		10,000 00		46,200 00
Emmanuel Missionary College	40 00	1 50	140 00		115,000 00				1,500 00	31,050 00		425 00	7,000 00
Hillsdale College	25 00	2 25	200 00		116,972 14	171,685 38	10,912 68		1,597 32	377 28	13,055 67		168 39
Hope College	18 00	2 50	160 00		75,000 00	241,357 21			1,501 17	16,493 69	19,216 74		1,221 88
Kalamazoo College	30 00	2 25	180 00		64,500 00	208,802 61	12,968 40		5,267 00	1,914 21	21,384 87	1,134 57	2,367 41
Olivet College		2 25	200 00		158,757 29	125,000 00	7,000 00		12,000 00		38,422 54	2,000 00	5,491 56
Academies and Seminaries:													
Academy of the Ladies of the Loretto	20 00	3 50	130 00									2,200 00	8,000 00

Academy of the Sacred Heart	60 00	†							3,000 00		3,000 00	500 00	
Academy of the Sacred Heart			400 00										
Akeley Institute	175 00		300 00		40,000 00	3,000 00	169 00		6,120 75	380 00	6,604 83	100 00	10,500 00
Benzonia College	25 00	2 00	125 00		12,230 00				821 83	2,210 55	4,240 45	70 00	1,521 41
Detroit Home and Day School	115 00	12 00	600 00		65,000 00				28,000 00	20,000 00	43,000 00	5,000 00	3,800 00
Detroit School for Boys													
Detroit Seminary					6,000 00				10,000 00		10,000 00	600 00	
Detroit University School	325 00	†	325 00		39,896 91				29,337 85	20,071 45	37,234 82	2,469 08	13,995 04
Holy Rosary Academy	100 00	2 00	125 00		1,500 00				1,760 00	852 00	2,112 00	500 00	
Michigan Female Seminary	50 00	6 00	250 00		100,000 00				3,000 00	10,000 00	11,000 00	1,500 00	16,000 00
Michigan Military Academy	450 00				300,000 00								
Nazareth Academy	100 00	2 50	200 00		63,000 00				5,000 00	3,000 00	5,000 00	3,000 00	30,000 00
Raisin Valley Seminary	15 00	2 00	110 00		10,000 00	14,900 00	945 67		518 17	200 45	2,089 02	250 00	150 00
St. Mary's Academy	20 00	2 50	132 00		97,808 00				‡26,206 08	2,484 97	25,742 61	1,229 05	
St. Mary's School	5 00	†			11,000 00				384 30	1,388 87	1,773 17		
Seminary of the Felician Sisters	80 00	1 50	90 00		57,050 00				3,050 00	3,000 00	3,050 00	3,000 00	2,000 00
Spring Arbor Seminary	22 50	2 00	110 00		10,000 00	6,000 00	300 00		1,200 00	300 00	1,500 00		700 00
Theological School, Christian Reformed Church	26 00	3 25	200 00		28,000 00				1,820 00		7,300 00	800 00	900 00
Ursuline Academy	5 00	3 00	170 00		10,000 00				1,800 00	150 00	1,000 00	50 00	1,900 00
Professional Schools:													
Detroit College of Law	60 00	†				29,000 00	1,549 90		9,762 58	121 10	7,750 37	1,500 00	900 00
Detroit College of Medicine:													
Department of Dental Surgery	60 00	3 00							14,148 58		9,002 06		
Medicine	60 00	3 00	110 00		100,000				21,680 00	2,135 19	12,721 94	400 00	40,000 00
Pharmacy	60 00	3 00	65 00						2,490 00		3,275 88	100 00	
Detroit Homeopathic College	81 75	†	81 75						2,402 10	2,000 00	2,400 00	500 00	
Grand Rapids Medical College	85 00	4 00	213 00		33,990 57				4,000 00		1,987 80	1,500 00	1,600 00
Michigan College of Medicine and Surgery	85 00	4 00	300 00		40,000 00				5,200 00		4,000 00		
Saginaw Valley Medical College	50 00	3 25	90 00		40,000 00				9,181 00		8,665 95	1,250 00	10,500 00
§Sprague Correspondence School of Law													
Schools with Normal and Business course:													
Armstrong Business School	25 00	2 25	200 00						1,500 00		1,500 00		
Bay City Business College	67 00	3 00	223 00		3,800 00				5,699 69	910 34	5,294 15	541 00	
Benton Harbor College	36 00	2 25	117 00		50,000 00				8,500 00		5,400 00	500 00	
Cleary's Business College		2 25			30,000 00								
Fenton Normal School and Commercial College	60 00	2 25			7,000 00				2,300 00	2,900 00	3,000 00		1,500 00
Ferris Institute	37 80	2 00	157 80		40,000 00				22,221 71		17,792 02	750 00	

* Non-residents.
† No boarders.
‡ Board and tuition.
‖ Value of library and apparatus.
§ No report received.

TABLE XXV.—CONCLUDED.

Name of institution.	Annual cost of tuition per student.	Average cost of board per week.	Total average annual cost to each student.	Total aver. annual cost of each student to the State.	Estimated value of grounds, buildings, library, apparatus, etc.	Amount of productive funds.	Income from productive funds.	Amount of legislative appropriation for 1900.	Receipts from tuition fees during the year.	Receipts from all other sources.	Current expenses for the year.	Expenses for permanent improvement.	Liabilities.
INCORPORATED UNDER ACT 39, LAWS OF 1855.													
Schools with Normal and Business course:													
Grand Rapids Business University	$75 00	$3 25	$90 00	.....	.....	.....	.....	.....	$4,845 17	$768 00	$5,500 81	.....	.....
*Gutcher's School	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
International Business College	75 00	2 75	240 00	.....	.....	.....	.....	.....	9,044 55	875 30	5,143 23	$500 00	.....
Jackson Business University	80 00	2 75	250 00	.....	$3,000 00	.....	.....	.....	1,433 85	143 96	1,061 21	100 00	$300 00
Lansing Business University	81 00	3 00	250 00	.....	.....	.....	.....	.....	3,153 75	.....	2,828 00	260 00	.....
Ludington Business College	11 54	2 50	.....	.....	2,500 00	.....	.....	.....	900 20	70 00	425 00	135 00	375 00
*Michigan Business and Normal College Company	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Three Rivers Business Academy and Normal School	40 00	2 50	124 00	.....	10,000 00	.....	.....	.....	1,050 00	850 00	1,700 00	200 00	2,400 00

* No report received.

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